API Well Number: 43047525140000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
NBU 921-7J

2. TYPE OF WORK
DRILL NEW WELL ● REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
NATURAL BUTTES

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
NATURAL BUTTES

6. NAME OF OPERATOR
KERR-MCGEE OIL & GAS ONSHORE, L.P.

7. OPERATOR PHONE
720 929-6515

8. ADDRESS OF OPERATOR
P.O. Box 173779, Denver, CO, 80217

9. OPERATOR E-MAIL
julie.jacobson@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
UTU 0575-B

11. MINERAL OWNERSHIP
FEDERAL ● INDIAN ○ STATE ○ FEE ○

12. SURFACE OWNERSHIP
FEDERAL ○ INDIAN ● STATE ○ FEE ○

13. NAME OF SURFACE OWNER (if box 12 = 'fee')

14. SURFACE OWNER PHONE (if box 12 = 'fee')

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')
Ute Indian Tribe

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ● (Submit Commingling Application) NO ○

19. SLANT
VERTICAL ● DIRECTIONAL ○ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2211 FSL 2441 FEL	NWSE	7	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	2211 FSL 2441 FEL	NWSE	7	9.0 S	21.0 E	S
At Total Depth	2211 FSL 2441 FEL	NWSE	7	9.0 S	21.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
1741

23. NUMBER OF ACRES IN DRILLING UNIT
811

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
1125

26. PROPOSED DEPTH
MD: 11725 TVD: 11725

27. ELEVATION - GROUND LEVEL
4711

28. BOND NUMBER
WYB000291

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 3110	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 11725	11.6	P-110 LT&C	13.0	Premium Lite High Strength	370	3.38	12.0
							50/50 Poz	1650	1.31	14.3

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ COMPLETE DRILLING PLAN
- ☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ☑ TOPOGRAPHICAL MAP

NAME Laura Abrams **TITLE** Regulatory Analyst II **PHONE** 720 929-6356

SIGNATURE **DATE** 04/23/2012 **EMAIL** Laura.Abrams@anadarko.com

API NUMBER ASSIGNED
43047525140000

APPROVAL
Permit Manager

RECEIVED: May 30, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-7J

Surface: 2211 FSL / 2441 FEL NWSE
BHL: 2211 FSL / 2441 FEL NWSE

Section 7 T9S R21E

Unitah County, Utah
Mineral Lease: UTU-0575-B

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,720'	
Birds Nest	2,031'	Water
Mahogany	2,657'	Water
Wasatch	5,238'	Gas
Mesaverde	8,383'	Gas
Sego	10,677'	Gas
Castlegate	10,768'	Gas
Blackhawk	11,125'	Gas
TVD	11,725'	
TD	11,725'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

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5. Drilling Fluids Program:

Please refer to the attached Drilling Program

6. Evaluation Program:

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 11725' TVD, approximately equals 7,739 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 5,212 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

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More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

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Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

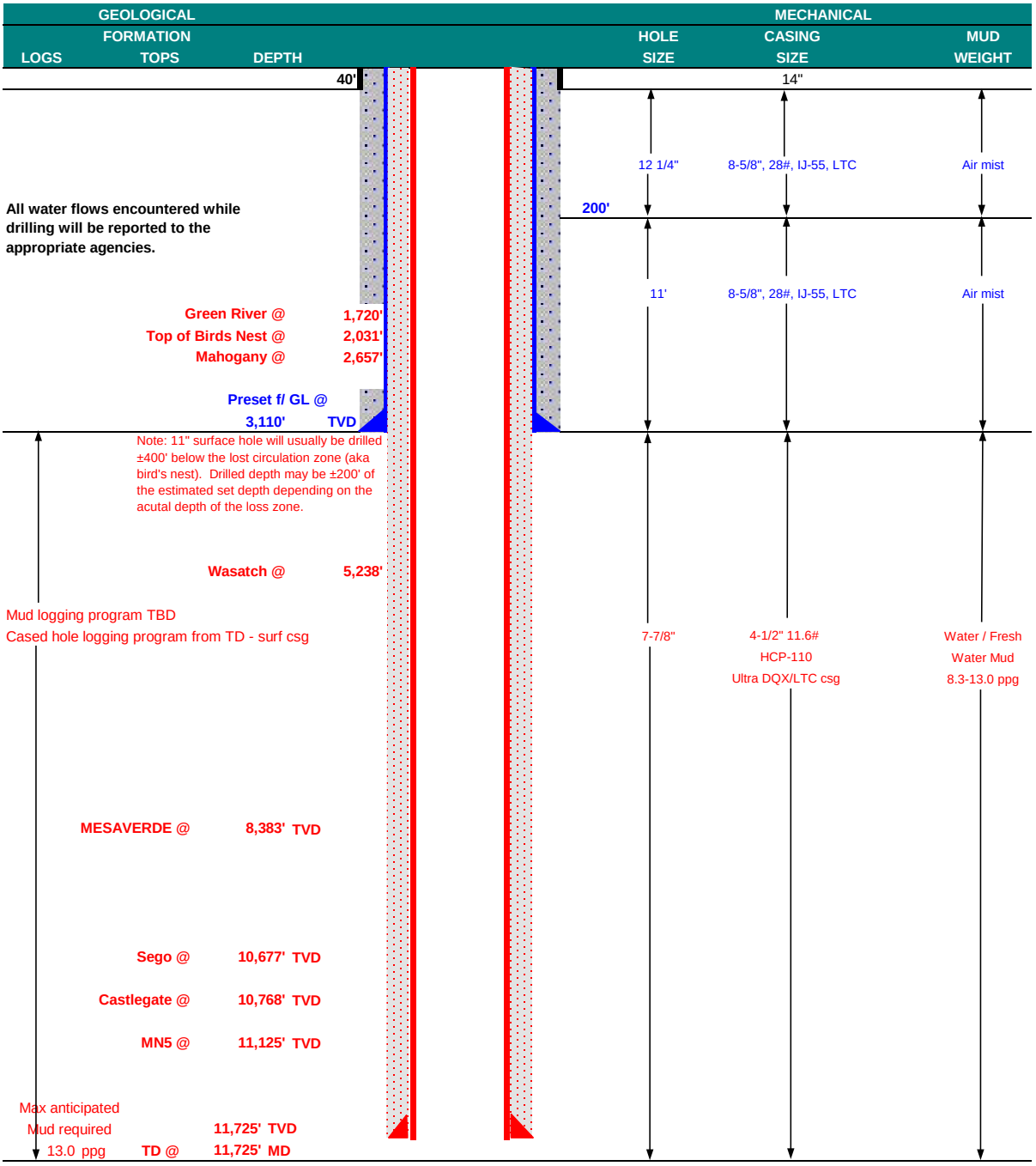
Please refer to the attached Drilling Program.

RECEIVED: April 20, 2012

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	April 19, 2012
WELL NAME	**NBU 921-7J**	11,725' TVD	11,725' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 4,711'
SURFACE LOCATION	NWSE 2211 FSL 2441 FEL	Sec 7 T 9S R 21E	
	Latitude: 40.049441	Longitude: -109.593794	NAD 83
BTM HOLE LOCATION	NWSE 2211 FSL 2441 FEL	Sec 7 T 9S R 21E	
	Latitude: 40.049441	Longitude: -109.593794	NAD 83
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)		
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Indian Tribe (Surface), UDOGM Tri-County Health Dept.		



NBU 921-7J

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION LTC	TENSION DQX
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	3,110	28.00	IJ-55	LTC	1.73	1.29	4.56	N/A
								10,690	8,650	279,000	367,000
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.09		3.37
	4-1/2"	5,000	to	11,725'	11.60	HCP-110	LTC	1.19	1.09	4.46	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	2,610'	65/35 Poz + 6% Gel + 10 pps gilsonite	240	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	4,735'	Premium Lite II +0.25 pps	370	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	6,990'	50/50 Poz/G + 10% salt + 2% gel	1,650	35%	14.30		1.31
			+ 0.1% R-3					

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

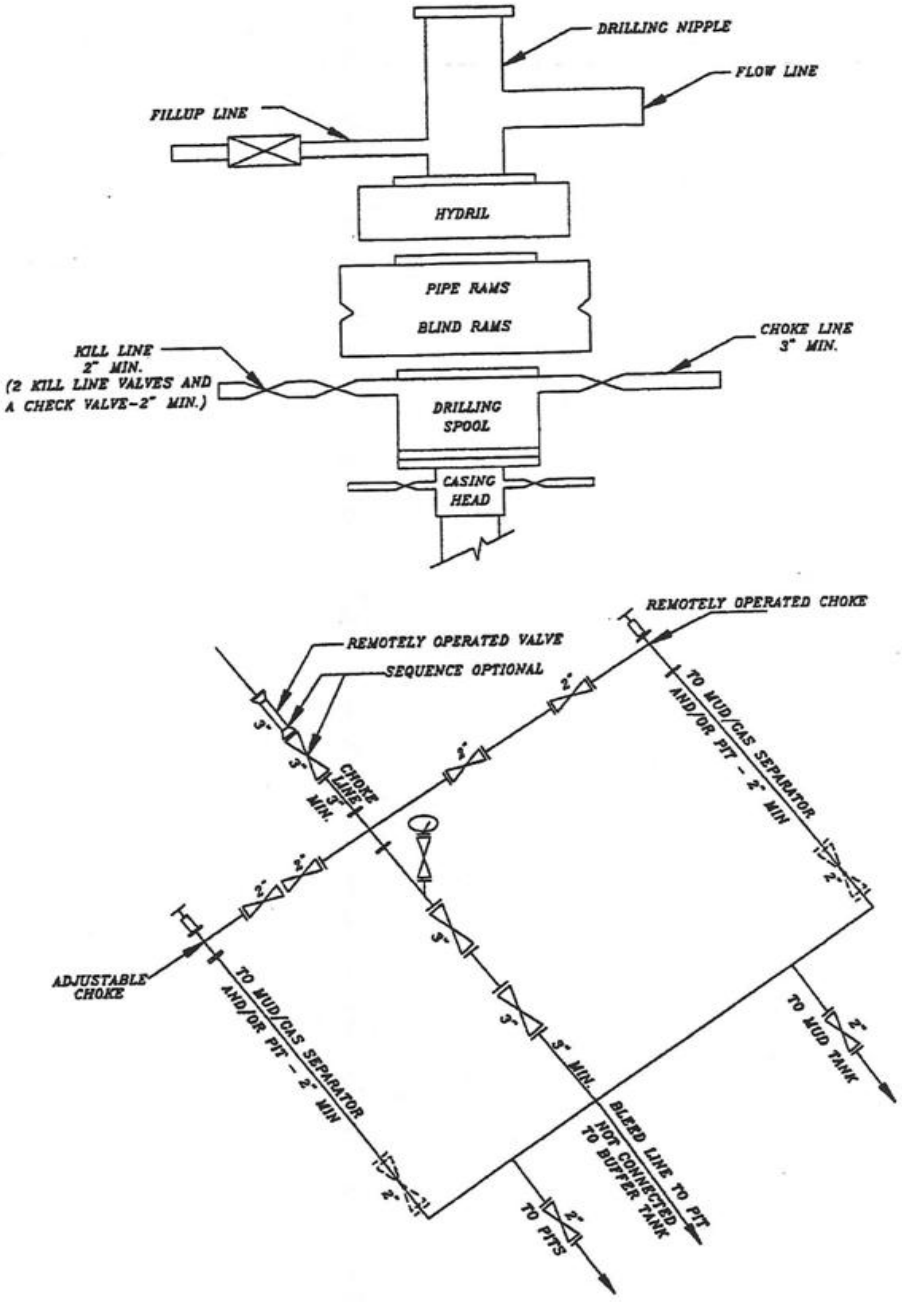
Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: April 20, 2012

EXHIBIT A
NBU 921-7J



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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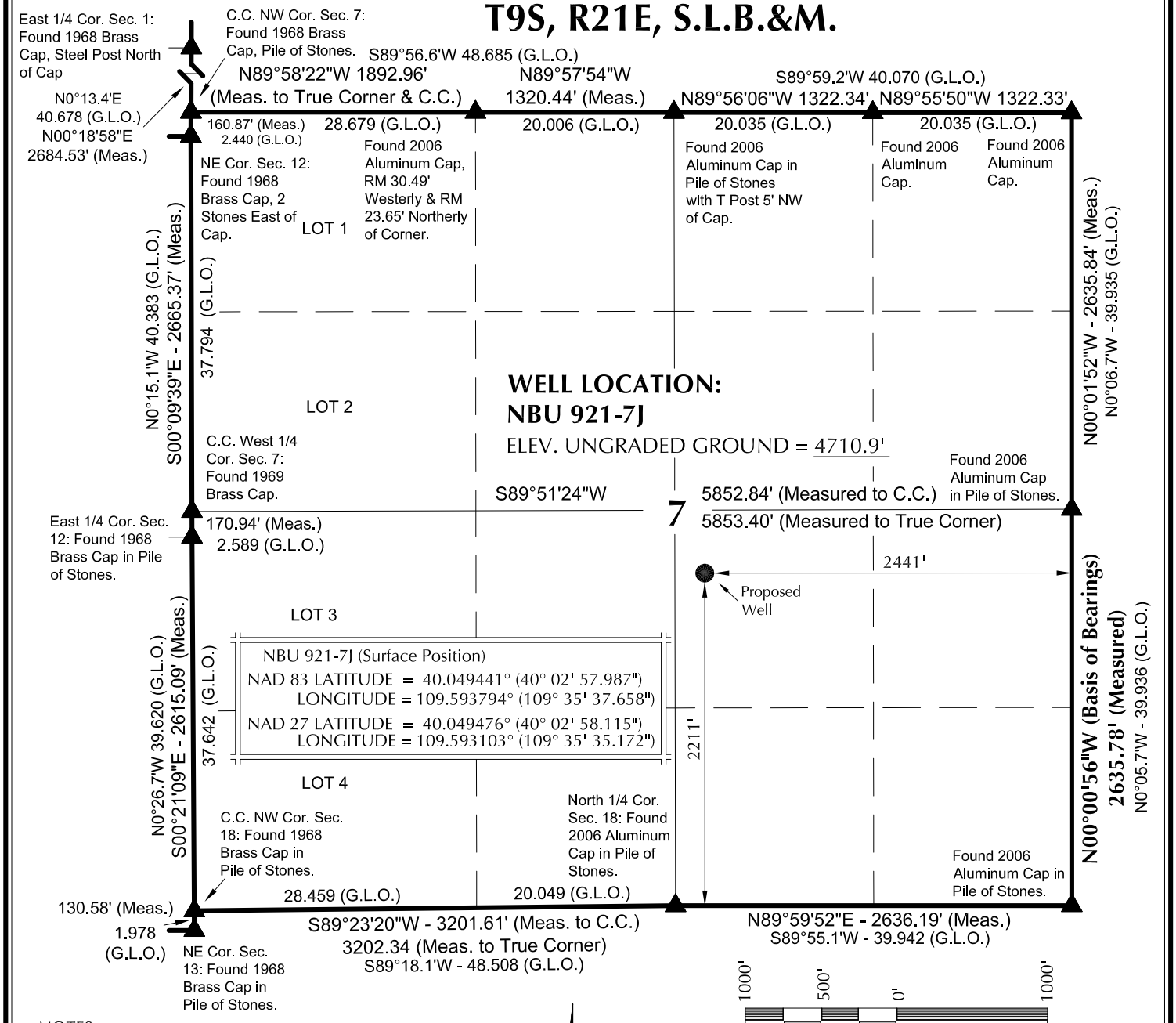
API Well Number: 43047525140000

T9S, R21E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. Bearings are based on Global Positioning Satellite observations.
4. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

3-22-12

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R. SLAUGH STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

NBU 921-7J
WELL PLAT
2211' FSL, 2441' FEL
NW ¼ SE ¼ OF SECTION 7, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

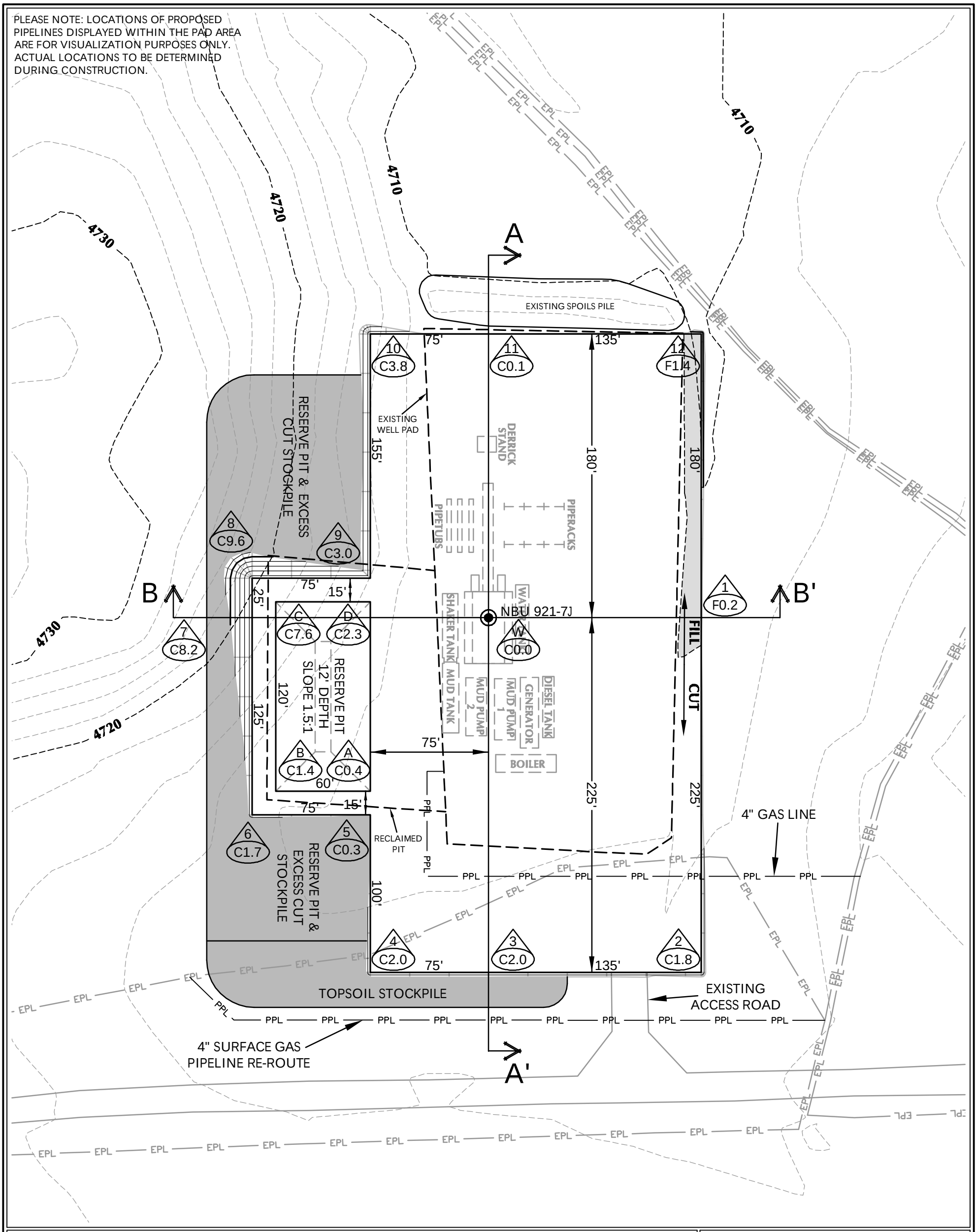
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 6-6-02	SURVEYED BY: J.W.	SHEET NO: 1
DATE DRAWN: 2-13-12	DRAWN BY: T.J.R.	1 OF 12
SCALE: 1" = 1000'	Date Last Revised:	

RECEIVED: April 20, 2012

API Well Number: 43047525140000

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 921-7J DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4710.9'
FINISHED GRADE ELEVATION = 4710.9'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 2.32 ACRES
TOTAL DISTURBANCE AREA = 2.99 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 2,385 C.Y.
TOTAL FILL FOR WELL PAD = 408 C.Y.
TOPSOIL @ 6" DEPTH = 948 C.Y.
EXCESS MATERIAL = 1,977 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 1,950 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 7,020 BARRELS

WELL PAD - NBU 921-7J

WELL PAD - LOCATION LAYOUT
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

SCALE: 1"=60'	DATE: 3/22/12	SHEET NO: 2
REVISED:		2 OF 12

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RECEIVED: April 20, 2012

API Well Number: 43047525140000

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

4730 4720 4710 4710

A A'

EXISTING SPOILS PILE

10 C3.8 | 11 C0.1 | 12 F1.4

75' 135'

EXISTING WELL PAD

RESERVE PIT & EXCESS CUT STOCKPILE

155'

DERRICK STAND

180' 180'

PIPETUBS PIPERACKS

8 C9.6 | 9 C3.0

75' 15'

25'

B B'

1 F0.2

NBU 921-7J

7 C8.2

C C7.6 | D C2.3

W C0.0

CLOSED LOOP EQUIPMENT SHAKER TANK MUD TANK MUD PUMP 2 WATER TANK MUD PUMP 1 GENERATOR DIESEL TANK

FILL CUT

COMPLETIONS PIT ((CUTTINGS AREA) 12' DEPTH SLOPE 1.5:1

120' 125'

B C1.4 | A C0.4

75' 60' 75' 15'

BOILER

225' 225'

RECLAIMED PIT

6 C1.7 | 5 C0.3

RESERVE PIT & EXCESS CUT STOCKPILE

4" GAS LINE

100'

4 C2.0 | 3 C2.0 | 2 C1.8

75' 135'

TOPSOIL STOCKPILE

EXISTING ACCESS ROAD

4" SURFACE GAS PIPELINE RE-ROUTE

EPL PPL

WELL PAD - NBU 921-7J (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4710.9'
FINISHED GRADE ELEVATION = 4710.9'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 2.32 ACRES
TOTAL DISTURBANCE AREA = 2.99 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

WELL PAD - LOCATION LAYOUT
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 2,385 C.Y.
TOTAL FILL FOR WELL PAD = 408 C.Y.
TOPSOIL @ 6" DEPTH = 948 C.Y.
EXCESS MATERIAL = 1,977 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT +/- 1,950 C.Y.
COMPLETIONS PIT CAPACITY (2' OF FREEBOARD) +/- 7,020 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' | DATE: 4/5/12 | SHEET NO: 2B 2B OF 12
REVISED:

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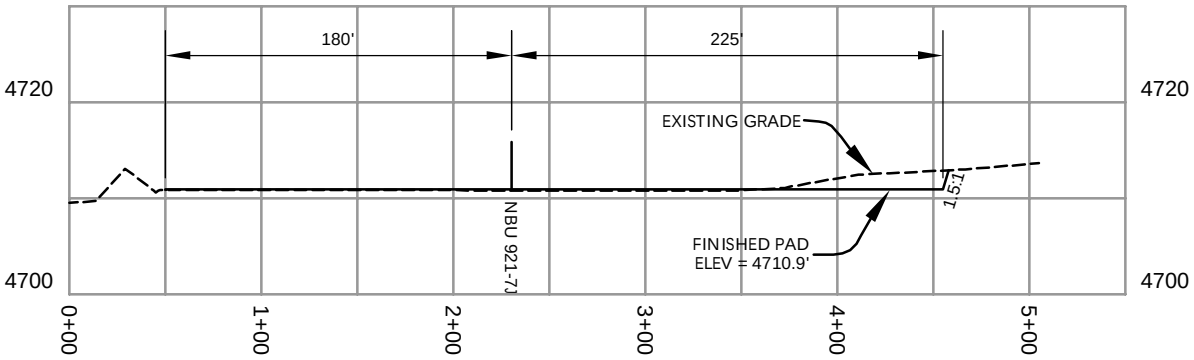
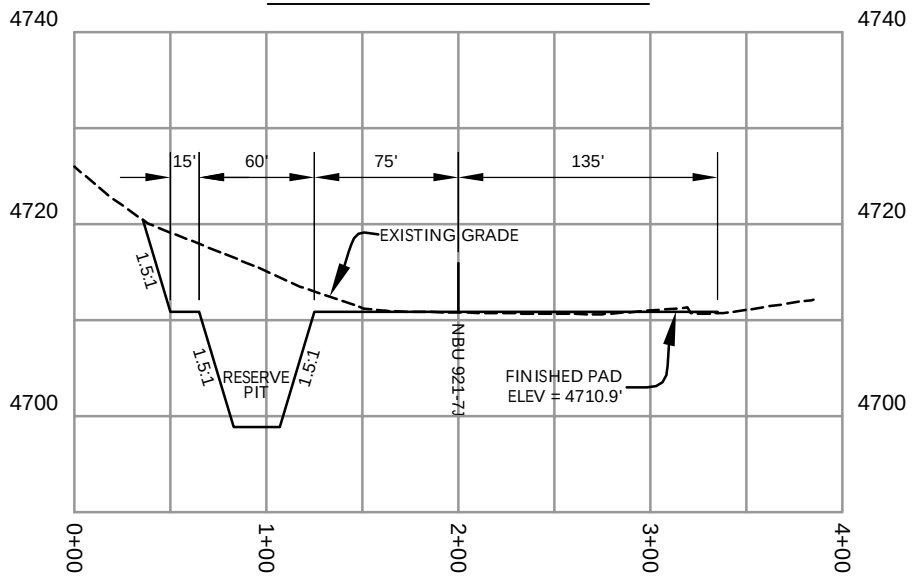
RECEIVED: April 20, 2012

API Well Number: 43047525140000



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

WELL PAD - CROSS SECTIONS
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 3/22/12 | SHEET NO: 3 3 OF 12
REVISED:

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RECEIVED: April 20, 2012

PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.

4730
4720
4710
4710
4720
4730
EPL
PROPOSED WELL PAD
EXISTING WELL PAD
NBU 921-7J
RESERVE PIT
90'
METAL CONTAINMENT
TANK (TYPICAL)
SEPARATOR/ METER HOUSE
75'
15'
30'
FILL
CUT
PPL
4" GAS LINE
DISTURBANCE BOUNDARY
EXISTING ACCESS ROAD
4" SURFACE GAS PIPELINE RE-ROUTE

WELL PAD - NBU 921-7J DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 2.99 ACRES
RECLAMATION AREA = 2.42 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 0.57 ACRES

WELL PAD LEGEND
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

WELL PAD - RECLAMATION LAYOUT
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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(435) 789-1365

SCALE: 1"=60' | DATE: 3/22/12 | SHEET NO: 4 | 4 OF 12
REVISED:

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PHOTO VIEW: FROM PROPOSED WELL HEAD TO CORNER 1 CAMERA ANGLE: SOUTHEASTERLY

PHOTO VIEW: FROM EXISTING ACCESS ROAD CAMERA ANGLE: NORTHEASTERLY

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WELL PAD - NBU 921-7J

LOCATION PHOTOS
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

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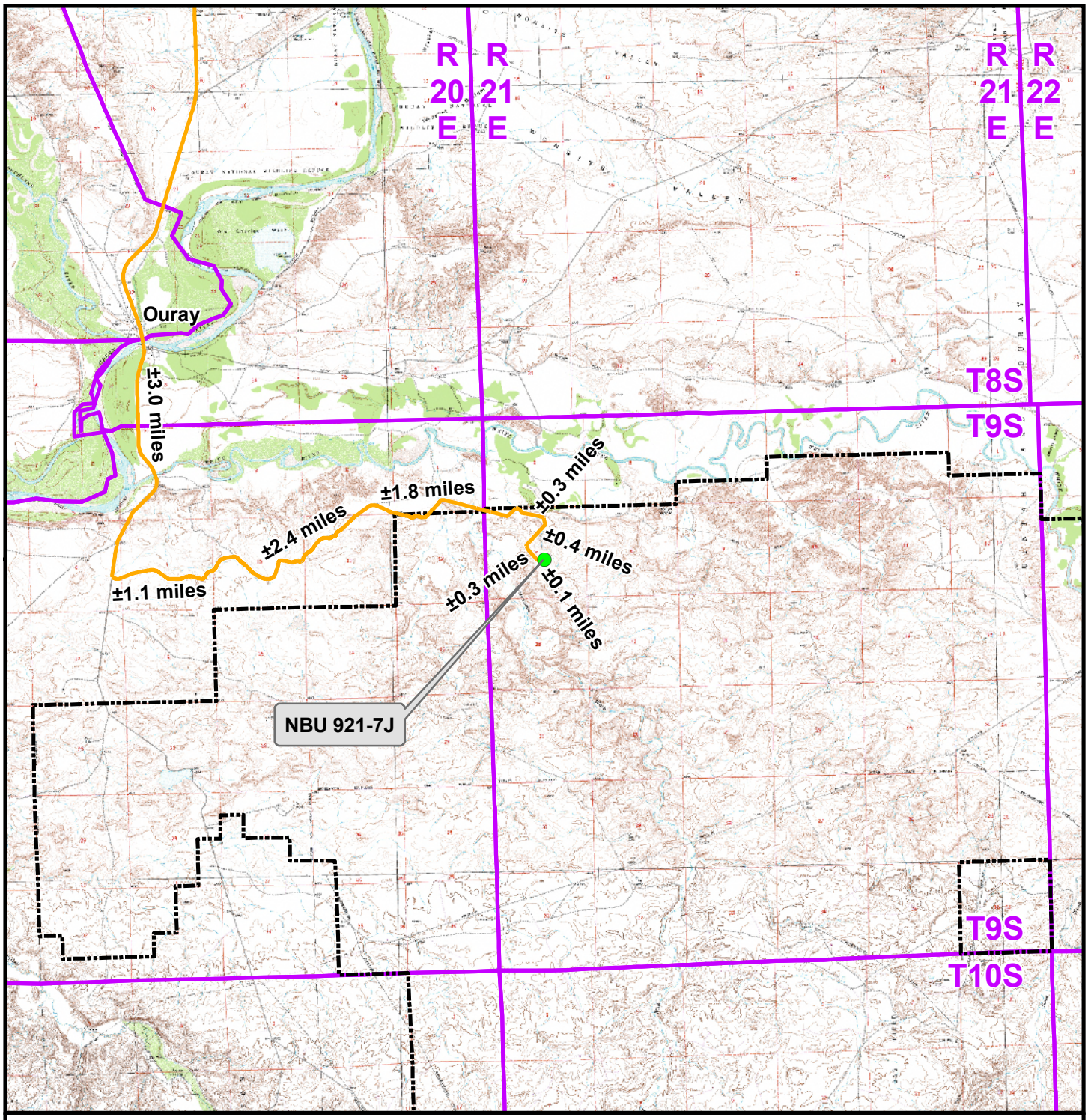
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 2-14-12	PHOTOS TAKEN BY: J.W.	SHEET NO: 5
DATE DRAWN: 2-15-12	DRAWN BY: T.J.R.	5 OF 12
Date Last Revised:		

RECEIVED: April 20, 2012

API Well Number: 43047525140000



Legend

Distance From Well Pad - NBU 921-7J To Unit Boundary: ±3,064ft

Proposed Well Location

Natural Buttes Unit Boundary

Access Route - Proposed

WELL PAD - NBU 921-7J

TOPO A
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

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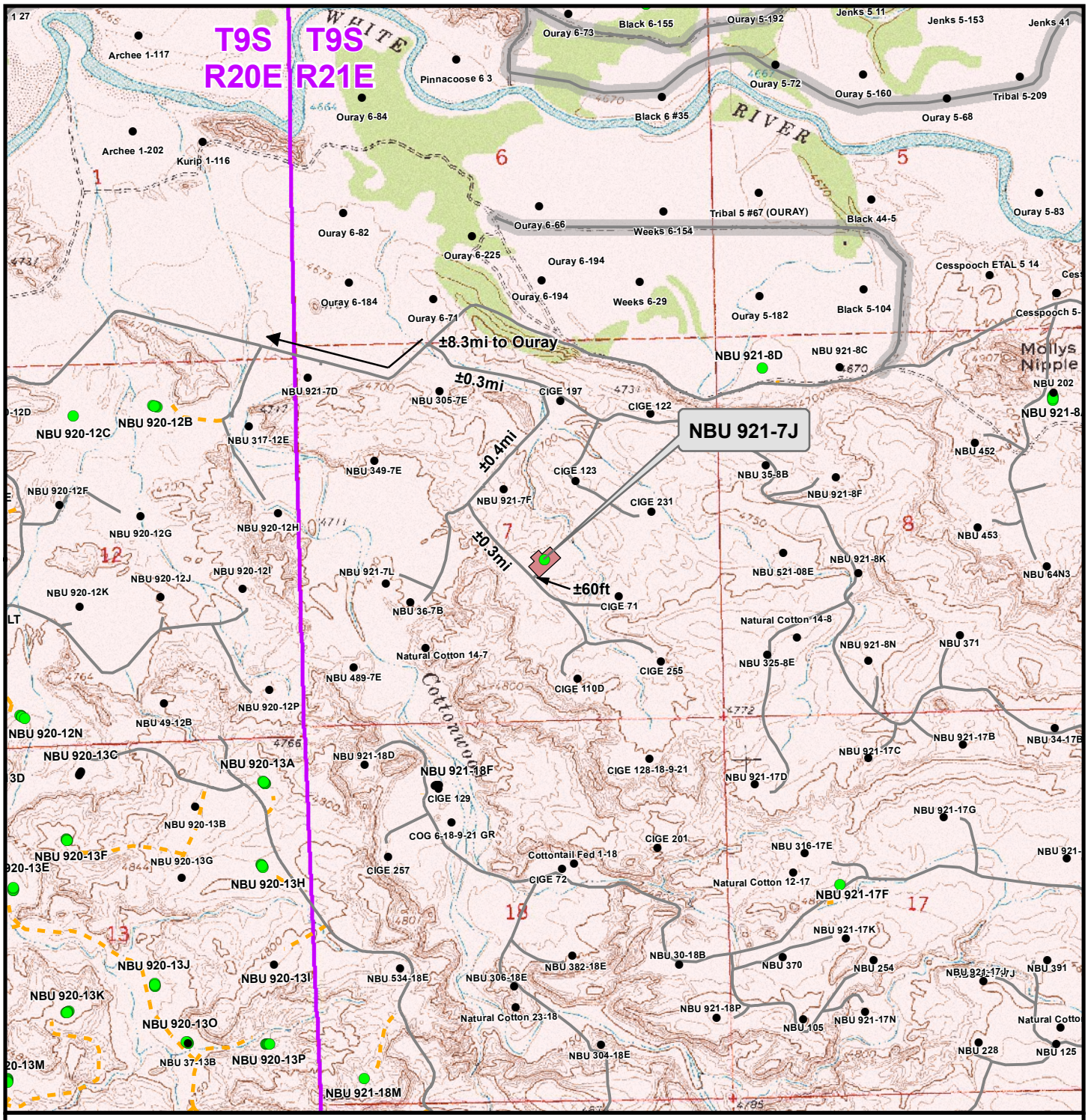
SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 6
DRAWN: TL	DATE: 22 Mar 2012	6 OF 12
REVISED:	DATE:	

RECEIVED: April 20, 2012

API Well Number: 43047525140000



Legend

Total Proposed Road Length: ±0ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO B
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

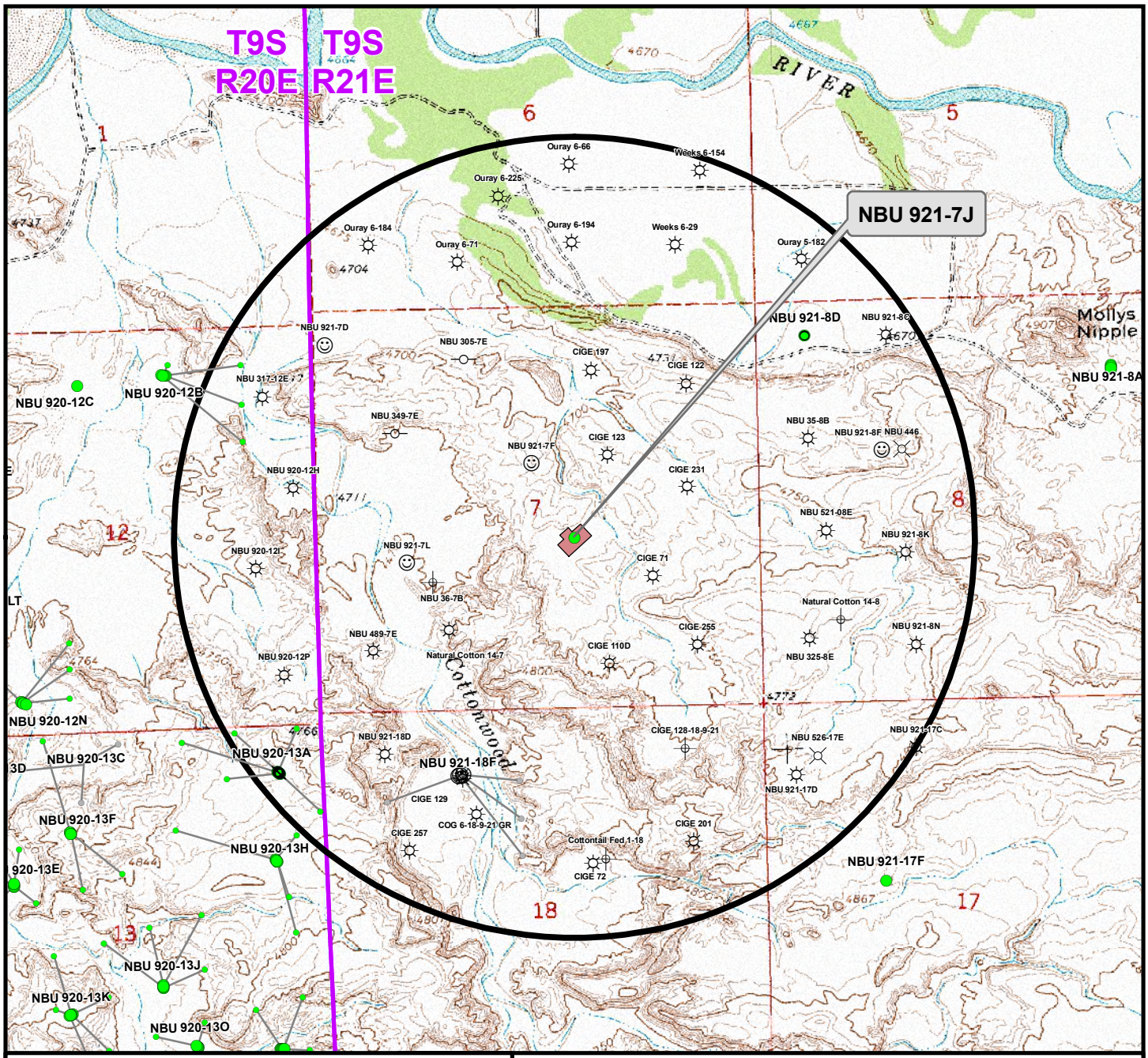
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 7	
DRAWN: TL	DATE: 22 Mar 2012	7 OF 12	
REVISED:	DATE:		

RECEIVED: April 20, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 921-7J	NBU 921-7F	1,125ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 921-7J

TOPO C
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
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Fax 307-674-0182

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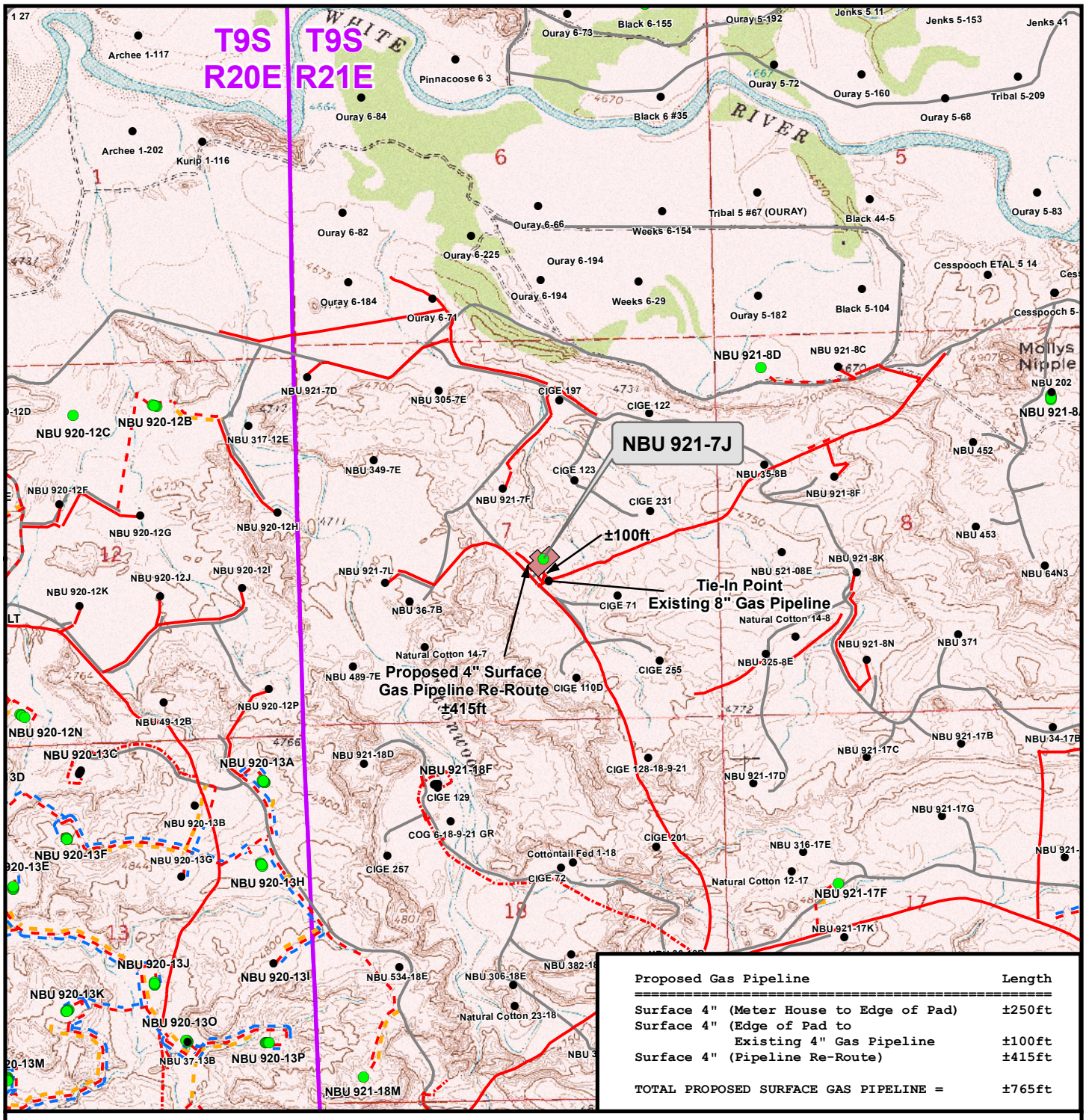
SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 8
DRAWN: TL	DATE: 22 Mar 2012	8 OF 12
REVISED:	DATE:	

RECEIVED: April 20, 2012



Proposed Gas Pipeline	Length
Surface 4" (Meter House to Edge of Pad)	±250ft
Surface 4" (Edge of Pad to Existing 4" Gas Pipeline	±100ft
Surface 4" (Pipeline Re-Route)	±415ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±765ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO D
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

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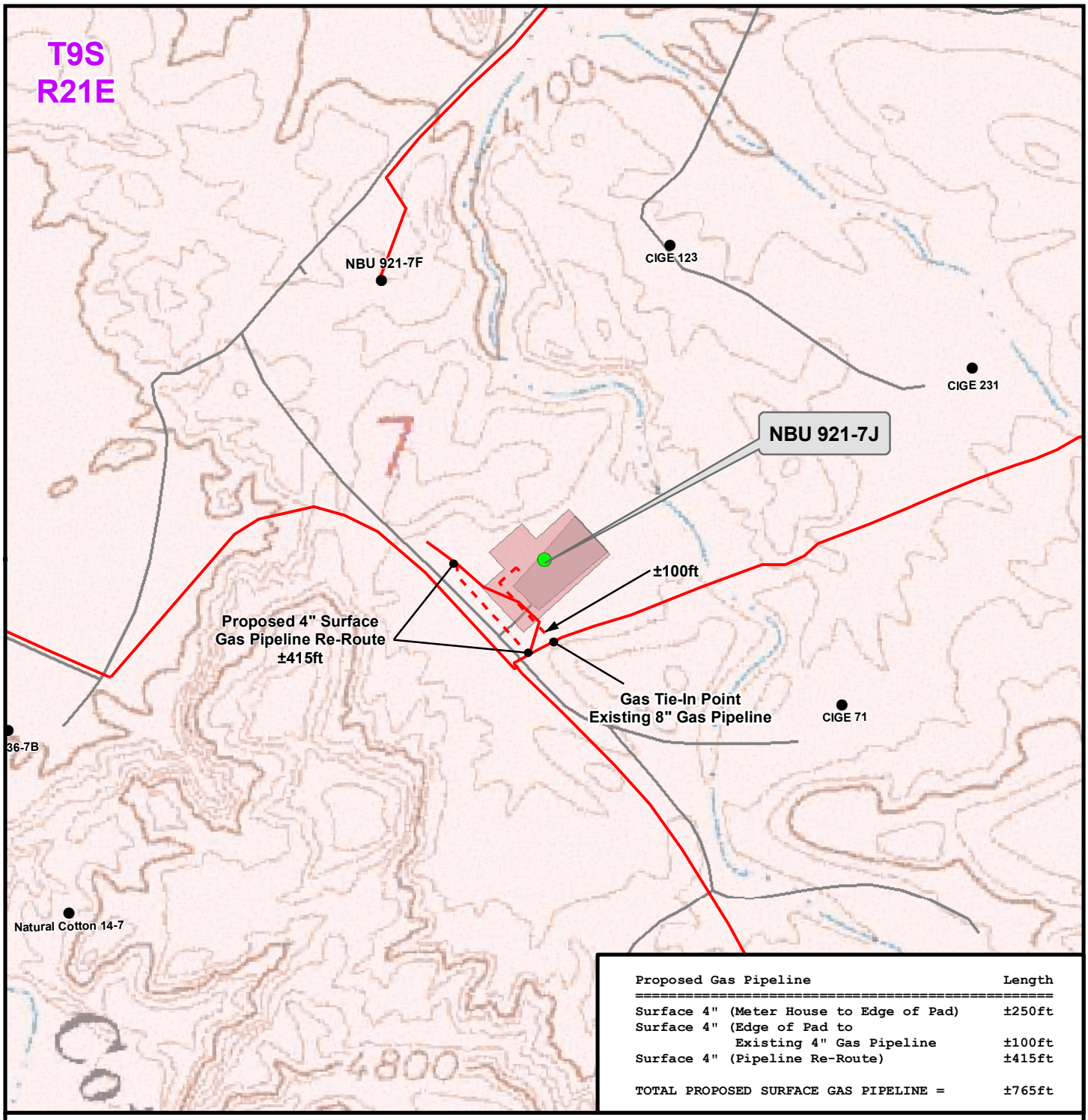
SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 9	
DRAWN: TL	DATE: 22 Mar 2012	9 OF 12	
REVISED:	DATE:		

RECEIVED: April 20, 2012



Proposed Gas Pipeline	Length
Surface 4" (Meter House to Edge of Pad)	±250ft
Surface 4" (Edge of Pad to Existing 4" Gas Pipeline	±100ft
Surface 4" (Pipeline Re-Route)	±415ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±765ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

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Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

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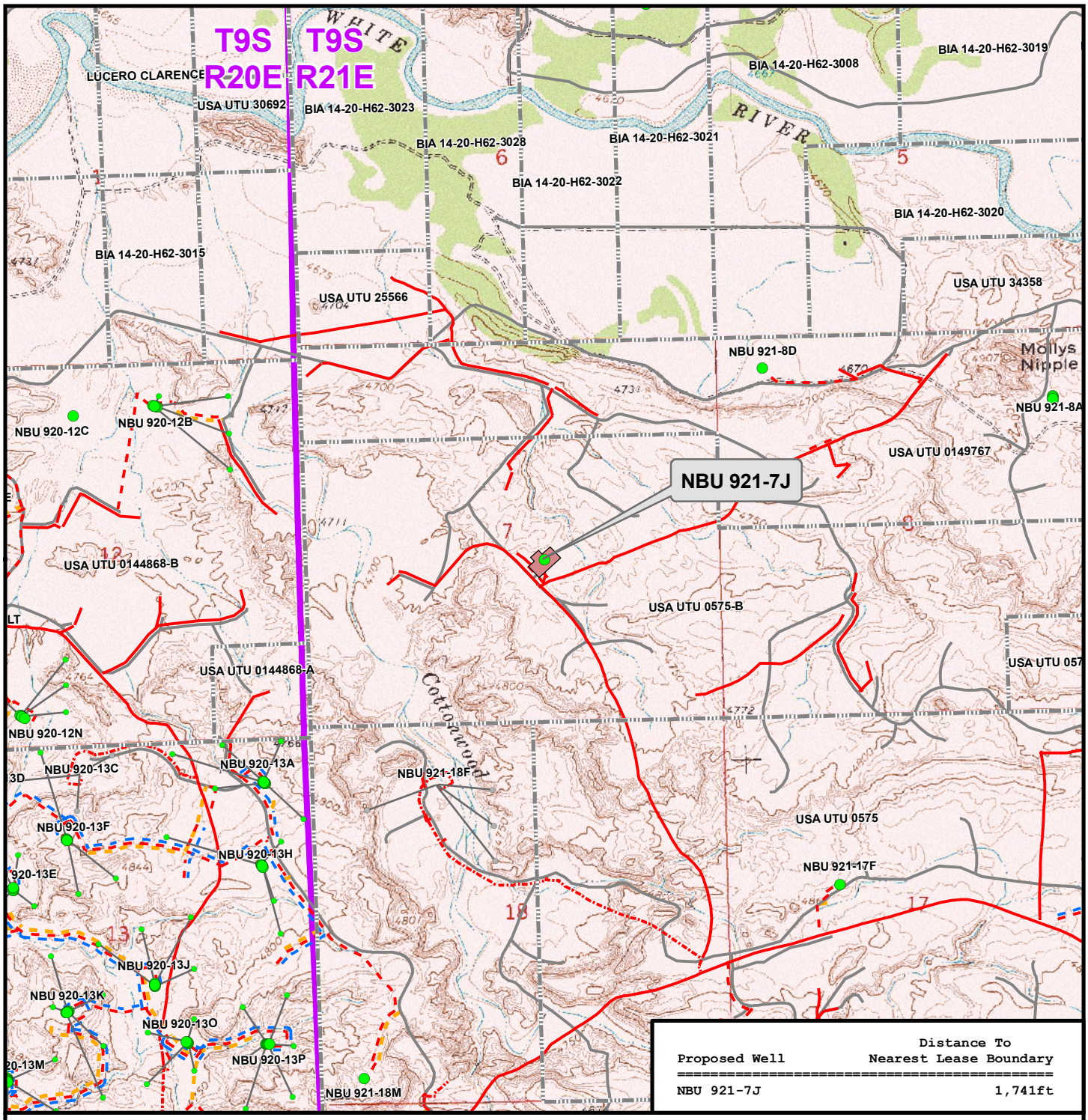
SCALE: 1" = 500ft	NAD83 USP Central	SHEET NO: 10
DRAWN: TL	DATE: 22 Mar 2012	10 OF 12
REVISED:	DATE:	

RECEIVED: April 20, 2012

API Well Number: 43047525140000



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO E
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 11	
DRAWN: TL	DATE: 22 Mar 2012	11 OF 12	
REVISED:	DATE:		

RECEIVED: April 20, 2012

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-7J
WELL – NBU 921-7J
Section 7, T9S, R21E, S.L.B.&M.

Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 approximately 13.9 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction along State Highway 88 approximately 16.8 miles to Ouray, Utah. From Ouray, proceed in a southerly direction along the Seep Ridge Road (County B Road 2810) approximately 3.0 miles to a service road to the east. Exit left and proceed in an easterly direction along the service road approximately 1.1 miles to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 2.4 miles to a third service road to the east. Exit right and proceed in an easterly direction along the third service road approximately 1.8 miles to a fourth service road to the southeast. Exit right and proceed in a southeasterly direction along the fourth service road approximately 0.3 miles to a fifth service road to the south. Exit right and proceed in a southerly, then southwesterly direction along the fifth service road approximately 0.4 miles to a sixth service road to the southeast. Exit left and proceed in a southeasterly direction along the sixth service road approximately 0.3 miles to an existing access road to the northeast. Exit left and proceed in a northeasterly direction along the existing access road approximately 65 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 40.0 miles in a southerly direction.

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Kerr-McGee Oil & Gas Onshore. L.P.

API #4304737594

	NBU 921-7J		
Surface:	2211 FSL / 2441 FEL	NWSE	Lot
BHL:	2211 FSL / 2441 FEL	NWSE	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

The NBU 921-7J well location was constructed pursuant to an Application for Permit to Drill (APD) approved on August 4, 2006 and associated Tribal Grant of Easements. Drilling and completions operations of this well will require minimal changes to the originally approved/constructed pad location.

An on-site meeting was held on August 28, 2002. Present were:

- Greg Darlington - BLM;
- Manuel Myore - BIA;
- Alvin Ignacio - Ute Indian Tribe;
- Robert Kay - Uintah Engineering and Land Surveying
- Carroll Estes, Carroll Wilson, Clay Einerson - Westport Oil and Gas Company

*** The NBU 921-7J single vertical well was onsited by Westport Oil and Gas Company, prior to Kerr McGee Oil and Gas Onshore, LP's acquisition.**

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

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Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BIA.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

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Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

There are no new access roads associated with the NBU 921-7J well location. All access roads associated with this well were previously constructed in conjunction with the well pad.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This is a new well pad that has previously been constructed; however there are no existing facilities on the location. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is ±350' and the individual segments are broken up as follows:

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

±350' (0.07 miles) – Section 7 T9S R21E (NW/4 SE/4) – On-lease UTU 0575-B Ute Indian Tribe surface, New 4" buried gas gathering pipeline from the meter to the existing 4" gas pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

±415' (0.08 miles) – Section 7 T9S R21E (NW/4 SE/4) – On-lease UTU 0575-B Ute Indian Tribe surface, 4" gas gathering pipeline re-route on the southwestern edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

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Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' disturbance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent disturbance width is for maintenance and repairs. Cross country permanent disturbance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route’s intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

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If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.
When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the Vernal BIA Office before terminating of the use of the pipeline(s).

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from Tribal lands without prior approval from the BIA. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BIA.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BIA, for all reportable spills of oil, produced liquids, and hazardous materials.

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Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BIA, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc.). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/ sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BIA. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BIA.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

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For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

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RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of disturbance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BIA.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

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Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BIA for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BIA will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BIA/Tribe. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications as proposed below in "Measures Common to Interim and Final Reclamation".

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Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BIA/Tribe.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BIA/Tribe or a specific seed mix will be proposed by Kerr-McGee to the BIA/Tribe and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Indian Ricegrass (Nezpar)	3
Sandberg Bluegrass	0.75
Bottlebrush Squirreltail	1
Great Basin Wildrye	0.5
Crested Wheatgrass	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing Saltbrush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Weed Control

Noxious weeds will be controlled in akk orihect areas un accordance with all applicable rules and regulations.

K. Surface/Mineral Ownership:

Ute Indian Tribe
P.O. Box 70
988 South 7500 East Annex Building
Fort Duschesne, UT 84026
(435) 722-4307

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

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L. Other Information:

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BIA.

Resource Reports:

The location has already been constructed and Tribal concurrence was re-issued and submitted to the Bureau of Land Management on January 10, 2012; therefore no revised resource reports have been conducted.

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	0.12	3.92
CO	2.2	0.11	2.31
VOC	0.1	10.94	11.04
SO_2	0.005	0.00	0.01
PM_{10}	1.7	0.11	1.81
$PM_{2.5}$	0.4	0.03	0.43
Benzene	2.2E-03	0.08	0.09
Toluene	1.6E-03	0.13	0.14
Ethylbenzene	3.4E-04	0.00	0.00
Xylene	1.1E-03	0.06	0.06
n-Hexane	1.7E-04	0.34	0.34
Formaldehyde	1.3E-02	8.64E-05	1.31E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	3.92	16,547	0.02%
VOC	11.04289	127,495	0.01%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html Uintah Basin Data

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M. Lessee's or Operators' Representative & Certification:

Laura Abrams
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6356

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Laura Abrams

April 16, 2012
Date

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

April 24, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
Well Pad NBU 922-31B		
43-047-52488	NBU 922-30O4BS	Sec 31 T09S R22E 0956 FNL 2220 FEL BHL Sec 30 T09S R22E 0406 FSL 1670 FEL
43-047-52489	**NBU 922-31A2BS**	**Sec 31 T09S R22E 0965 FNL 2222 FEL BHL Sec 31 T09S R22E 0076 FNL 1100 FEL**
Well Pad NBU 921-7J		
43-047-52514	**NBU 921-7J**	**Sec 07 T09S R21E 2211 FSL 2441 FEL**

This office has no other objection to permitting the wells at this time.

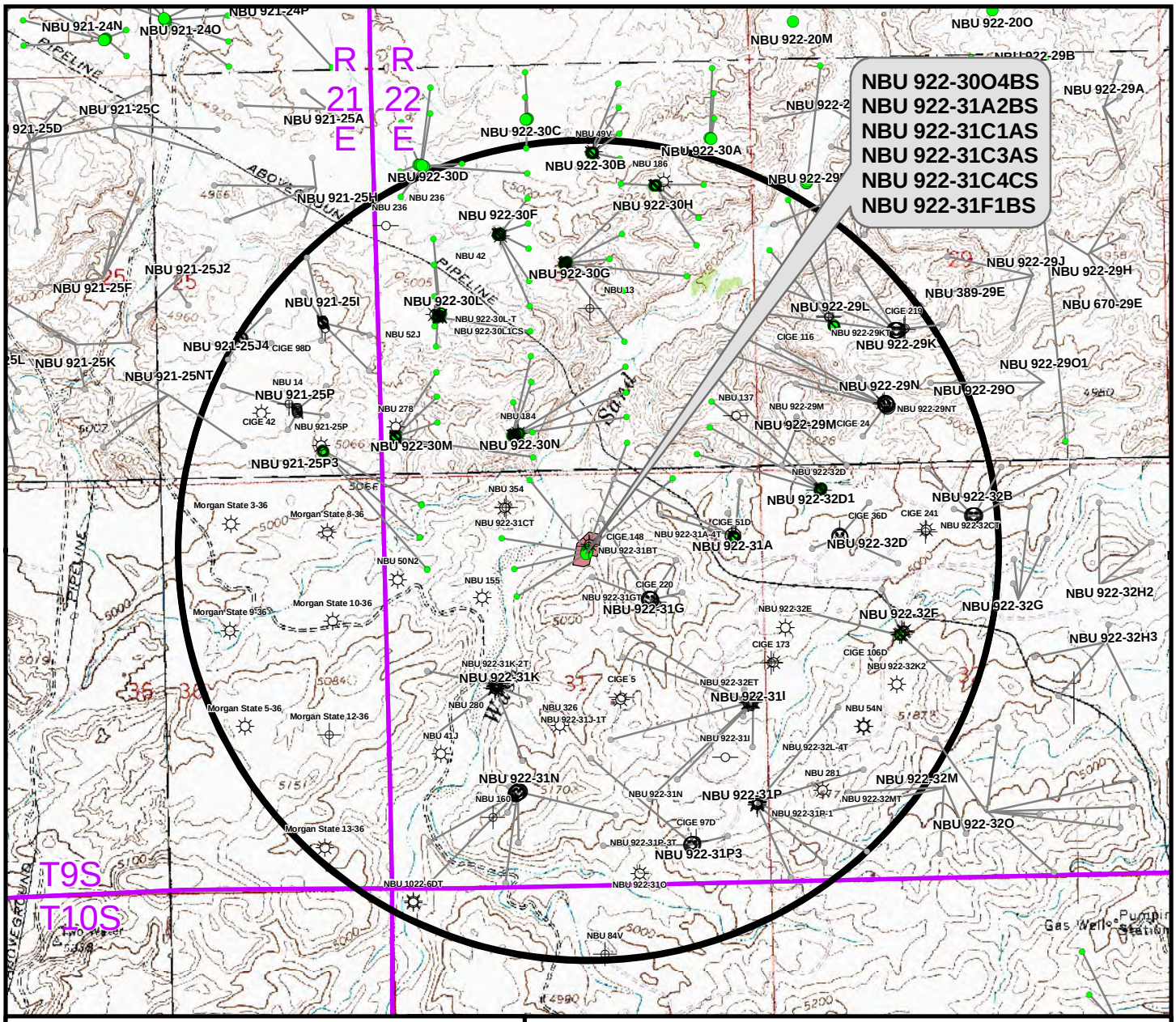
Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.04.24 10:29:56 -06'00'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:4-24-12

RECEIVED: April 24, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 922-30O4BS	NBU 922-31B1BS BH	502ft
NBU 922-31A2BS	NBU 922-31A2CS BH	478ft
NBU 922-31C1AS	NBU 354	465ft
NBU 922-31C3AS	NBU 922-31CT	397ft
NBU 922-31C4CS	NBU 155	556ft
NBU 922-31F1BS	NBU 155	447ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 922-31B

TOPO C
NBU 922-30O4BS, NBU 922-31A2BS, NBU 922-31C1AS, NBU 922-31C3AS, NBU 922-31C4CS & NBU 922-31F1BS
LOCATED IN SECTION 31, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:	14
DRAWN: TL	DATE: 14 Jan 2011		14 OF 18
REVISED: TL	DATE: 4 Nov 2011		

Received: April 17, 2012

API Well Number: 43047525140000

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-31B PAD
Well: NBU 922-30O4BS
Wellbore: OH
Design: PLAN #2

Anadarko Petroleum Corporation

WELL DETAILS: NBU 922-30O4BS

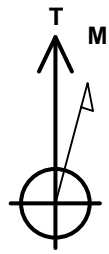
GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14528641.40	2065986.00	39.997170	-109.480520

DESIGN TARGET DETAILS

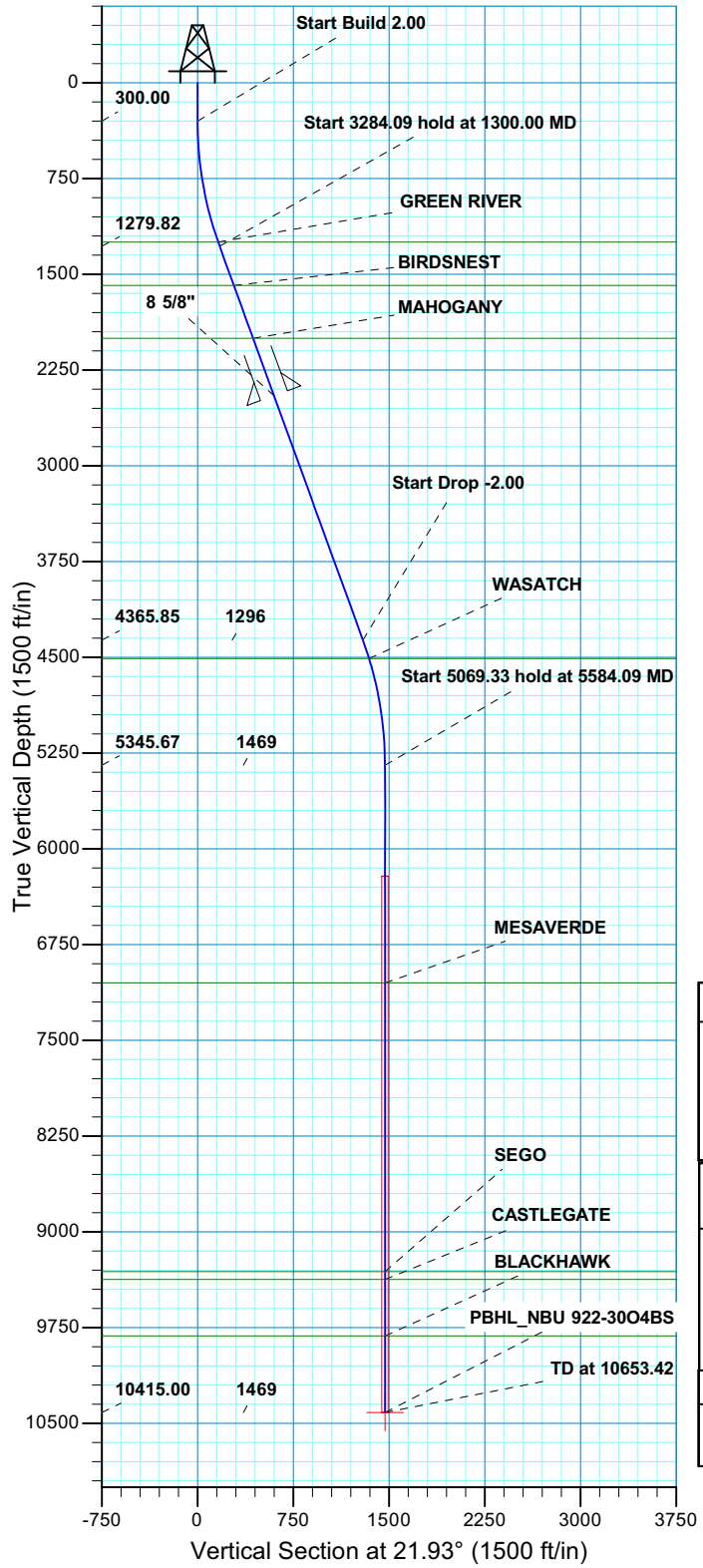
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	10415.00	1362.52	548.46	14530013.07	2066511.16	40.000911	-109.478562	Circle (Radius: 25.00)

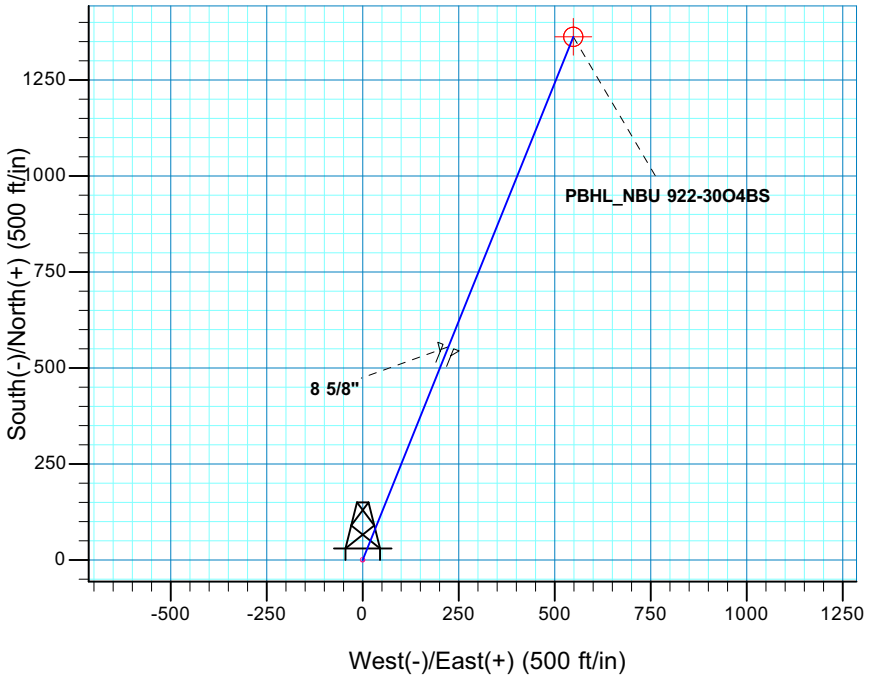
- plan hits target center



Azimuths to True North
Magnetic North: 11.05°

Magnetic Field
Strength: 52317.8snT
Dip Angle: 65.87°
Date: 08/02/2011
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	21.93	1279.82	160.27	64.51	2.00	21.93	172.77	
4584.09	20.00	21.93	4365.85	1202.25	483.95	0.00	0.00	1295.99	
5584.09	0.00	0.00	5345.67	1362.52	548.46	2.00	180.00	1468.76	
10653.42	0.00	0.00	10415.00	1362.52	548.46	0.00	0.00	1468.76	PBHL_NBU 922-30O4BS

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 31 T9S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1247.00	1265.15	GREEN RIVER
1587.00	1626.90	BIRDSNEST
2001.00	2067.47	MAHOGANY
4509.00	4735.05	WASATCH
7050.00	7288.42	MESAVERDE
9311.00	9549.42	SEGO
9373.00	9611.42	CASTLEGATE
9815.00	10053.42	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2451.00	2546.35	8 5/8"	8.625

Plan: PLAN #2 (NBU 922-30O4BS/OH)
Created By: Gabe Kynaston Date: 14:38, March 08 2012

 Received: April 17, 2012

API Well Number: 43047525140000

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-31B PAD
Well: NBU 922-31A2BS
Wellbore: OH
Design: PLAN #2

Anadarko Petroleum Corporation

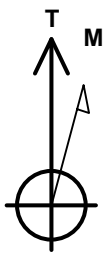
WELL DETAILS: NBU 922-31A2BS

GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14528631.53	2065983.93	39.997143	-109.480528

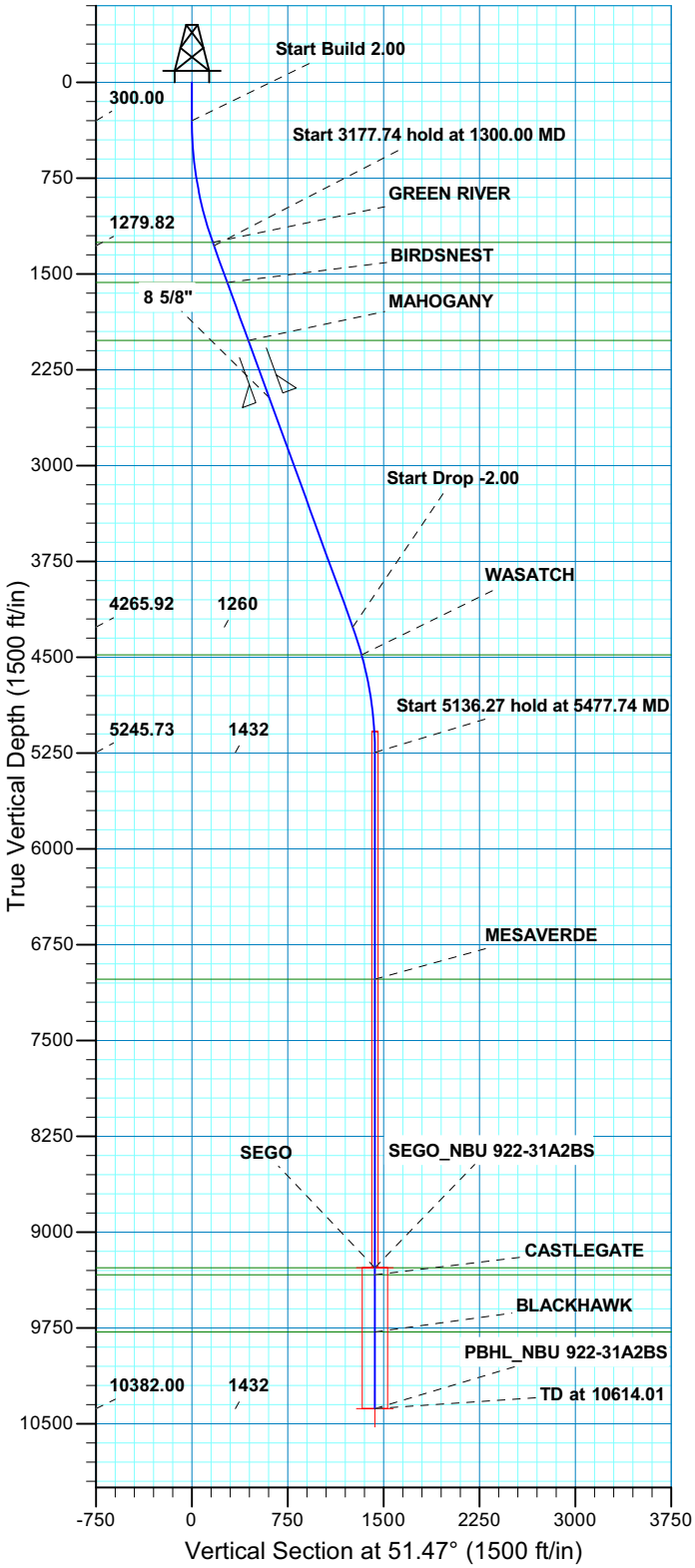
DESIGN TARGET DETAILS

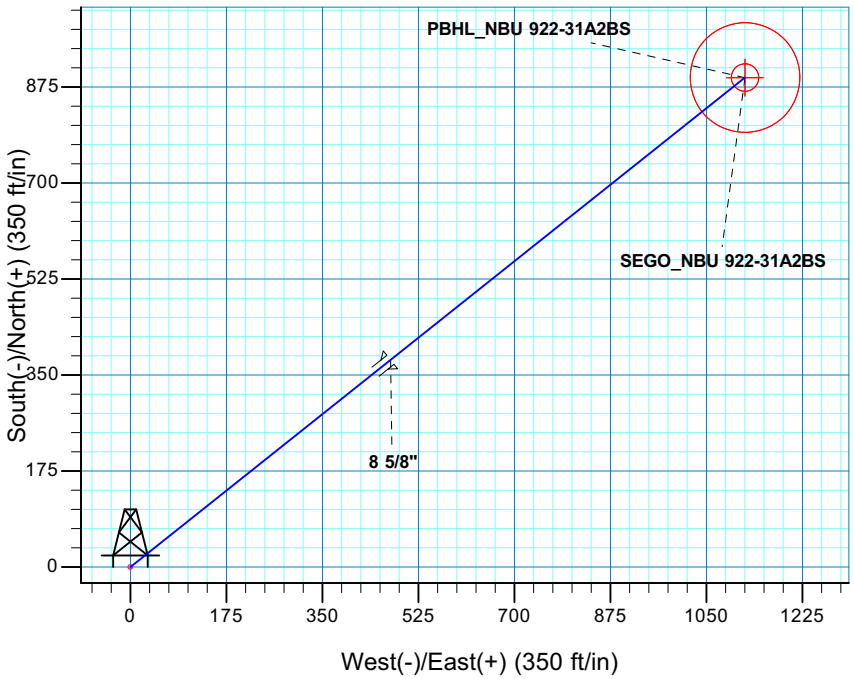
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	9280.00	892.34	1120.48	14529542.84	2067089.03	39.999593	-109.476528	Circle (Radius: 25.00)
	- plan hits target center							
PBHL	10382.00	892.34	1120.48	14529542.84	2067089.03	39.999593	-109.476528	Circle (Radius: 100.00)
	- plan hits target center							



Azimuths to True North
Magnetic North: 11.05°

Magnetic Field
Strength: 52317.8snT
Dip Angle: 65.87°
Date: 08/02/2011
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	51.47	1279.82	107.63	135.15	2.00	51.47	172.77	
4477.74	20.00	51.47	4265.92	784.71	985.33	0.00	0.00	1259.62	
5477.74	0.00	0.00	5245.73	892.34	1120.48	2.00	180.00	1432.39	
10614.01	0.00	0.00	10382.00	892.34	1120.48	0.00	0.00	1432.39	PBHL_NBU 922-31A2BS

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 31 T9S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1253.00	1271.51	GREEN RIVER
1567.00	1605.62	BIRDSNEST
2021.00	2088.75	MAHOGANY
4482.00	4704.66	WASATCH
7020.00	7252.01	MESAVERDE
9280.00	9512.01	SEGO
9335.00	9567.01	CASTLEGATE
9782.00	10014.01	BLACKHAWK

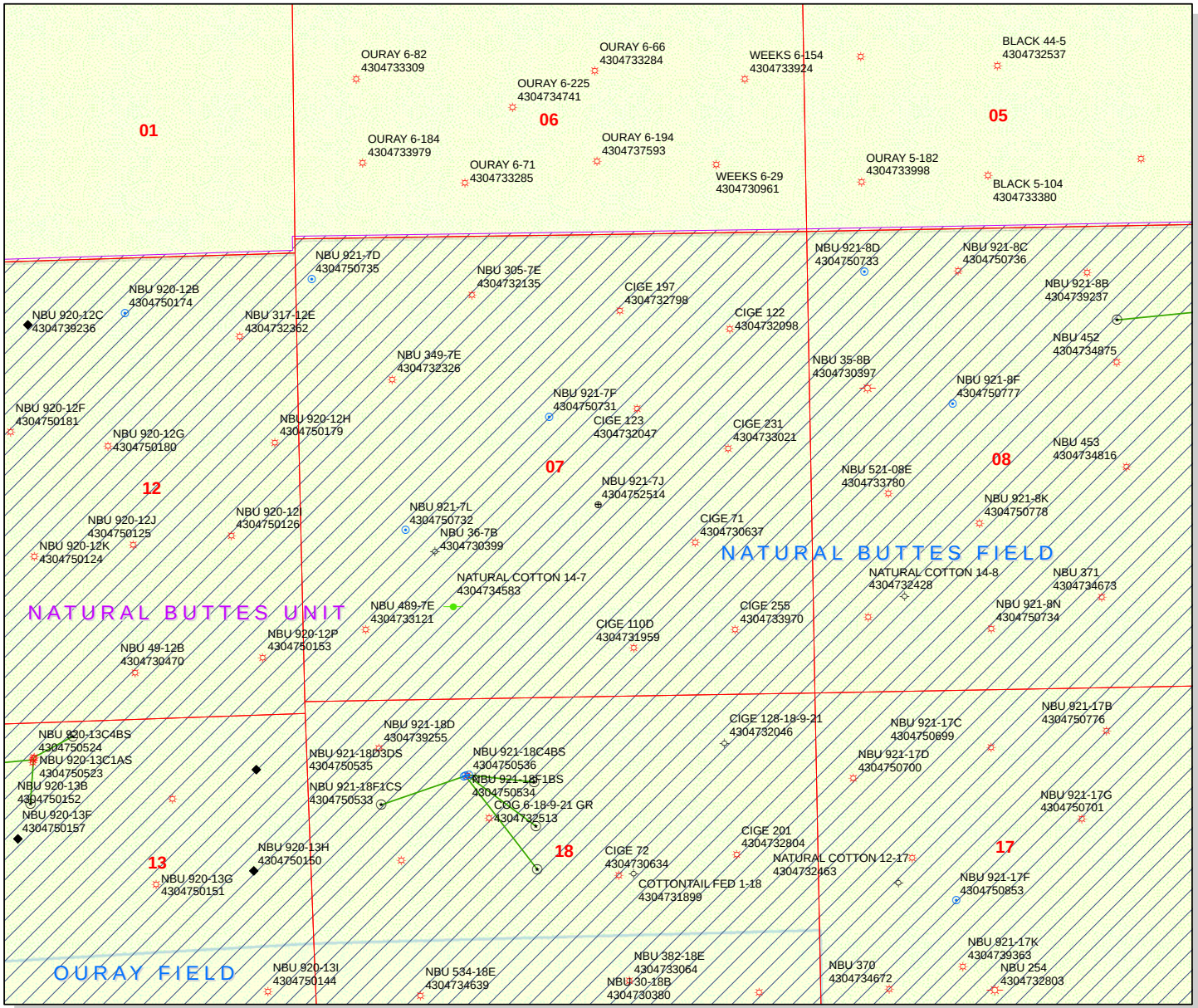
CASING DETAILS

TVD	MD	Name	Size
2471.00	2567.63	8 5/8"	8.625

Plan: PLAN #2 (NBU 922-31A2BS/OH)
Created By: Gabe Hansen Date: 15:00, March 08 2012

Received: April 17, 2012

API Well Number: 43047525140000



API Number: 4304752514

Well Name: NBU 921-7J

Township T0.9 . Range R2.1 . Section 07

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,500 750 0 1,500 Feet

1:14,184

RECEIVED: April 25, 2012

API Well Number: 43047525140000

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 4/23/2012
API NO. ASSIGNED: 43047525140000
WELL NAME: NBU 921-7J
OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)
PHONE NUMBER: 720 929-6356
CONTACT: Laura Abrams

PROPOSED LOCATION: NWSE 07 090S 210E
Permit Tech Review: ☑

SURFACE: 2211 FSL 2441 FEL
Engineering Review: ☑

BOTTOM: 2211 FSL 2441 FEL
Geology Review: ☑

COUNTY: UINTAH
LATITUDE: 40.04932
LONGITUDE: -109.59381
UTM SURF EASTINGS: 619948.00
NORTHINGS: 4434178.00
FIELD NAME: NATURAL BUTTES
LEASE TYPE: 1 - Federal
LEASE NUMBER: UTU 0575-B
PROPOSED PRODUCING FORMATION(S): BLACKHAWK
SURFACE OWNER: 2 - Indian
COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14
Effective Date: 12/2/1999
Siting: Suspends General Siting

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason

RECEIVED: May 30, 2012

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-7J
API Well Number: 43047525140000
Lease Number: UTU 0575-B
Surface Owner: INDIAN
Approval Date: 5/30/2012

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284
  (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

RECEIVED

Form 3160-3
(August 2007)

APR 2 0 2012

BLM, Vernal Utah

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU0575B

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
UTU63047A

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
NBU 921-7J

2. Name of Operator
KERR-MCGEE OIL&GAS ONSHORE LP

Contact: LAURA ABRAMS
E-Mail: laura.abrams@anadarko.com

9. API Well No.
43-047-50514.

3a. Address
1099 18TH STREET SUITE 600
DENVER, CO 80202

3b. Phone No. (include area code)
Ph: 720-929-6356

10. Field and Pool, or Exploratory
NATURAL BUTTES

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NWSE 2211FSL 2441FEL 40.049441 N Lat, 109.593794 W Lon

At proposed prod. zone NWSE 2211FSL 2441FEL 40.049441 N Lat, 109.593794 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 7 T9S R21E Mer SLB

14. Distance in miles and direction from nearest town or post office*
40.0 MILES SOUTH OF VERNAL, UT

12. County or Parish
UINTAH

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1741'

16. No. of Acres in Lease
811.00

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
1125'

19. Proposed Depth
11725 MD
11725 TVD

20. BLM/BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.
4711 GL

22. Approximate date work will start
10/01/2012

23. Estimated duration
30-60 DAYS

24. Attachments

RECEIVED
NOV 2 3 2012
DIV. OF OIL, GAS & MINING

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	LAURA ABRAMS Ph: 720-929-6356	04/19/2012

Title
REGULATORY ANALYST II

Approved by (Signature)	Name (Printed/Typed)	Date
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	NOV 1 6 2012

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #135868 verified by the BLM Well Information System
For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

UDOGM

NOTICE OF APPROVAL

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

12UBRUSLSTE NO NOS- APD Posted 4/24/2012.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore, LP**	**Location:**	**NWSE, Sec. 7, T9S, R21E**
Well No:	**NBU 921-7J**	**Lease No:**	**UTU-0575B**
API No:	**43-047-52514**	**Agreement:**	**Natural Buttes**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to:blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

- A 0 foot corridor right-of –way shall be approved. Upon completion of each pipeline in corridor, they shall be identified and filed with the Ute Tribe

- A qualified Archaeologist accompanied by a Tribal Technician will monitor trenching construction of pipeline.

- The Ute Tribe Energy &Mineral Department is to be notified, in writing 48 hours prior to construction of pipeline

- Construction Notice shall be given to the department of the Ute Tribe workdays, which are Monday through Thursday. The Company understands that they may be responsible for cost incurred by the Ute Tribe after hours.

- The Company shall inform contractors to maintain construction of pipelines within the approved ROWs.

- **The Company shall assure the Ute Tribe that "ALL CONTRACTOR, INCLUDING SUB-CONTRACTORS, LEASING CONTRACTORS, AND ETC." have acquired a current and valid Ute Tribal Business License and have "Access Permits" prior to construction, and will have the permits in all vehicles at all times.**

- **You are hereby notified that working under the "umbrella" of a company does not allow you to be in the field, and can be subject to those fines of the Ute Tribe Severance Tax Ordinance.**

- Any deviation of submitted APDs and ROW applications the Companies will notify the Ute Tribe and BIA in writing and will receive written authorization of any such change with appropriate authorization.

- The Company will implement "Safety and Emergency Plan." The Company's safety director will ensure its compliance.

- All Company employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APDs and/or ROW permits/authorizations on their person(s) during all phases of construction.

- All vehicular traffic, personnel movement, construction/restoration operations shall be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.

- All personnel shall refrain from collecting artifacts, and paleontological fossils, and from disturbing any significant cultural resources in the area.

- The personnel from the Ute Tribe Energy & Minerals Department shall be notified shall cultural remains from subsurface deposits be exposed or identified during construction. All construction will cease.

- All mitigative stipulations contained in the Bureau of Indian Affairs Site Specific Environmental Assessment (EA) will be strictly adhered.

- Upon completion of Application of Corridor Right-of-Way, the company will notify the Ute Tribe Energy & Minerals Department, so that a Tribal Technician can verify Affidavit of Completion.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Cement for the 4.5 inch casing shall be brought up to a minimum of 2,900 feet.
- A CBL shall be run from TD to TOC in the Production Casing.
- Variances shall be granted as requested in the APD for the process of air drilling to the depth of the surface casing,
- A variance is granted for the FIT test requirement.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 34519 API Well Number: 43047525140000

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: MAVERICK

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 2/6/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests to authorization to change the subject well from a vertical to a horizontal well. This change will move the well from the Natural Buttes Unit to the Maverick Unit UTU88574X, approval order No. 197-013 on July 25, 2012. Please see the attached revised plat, drilling program and directional survey. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: March 04, 2013

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 2/6/2013

RECEIVED: Feb. 06, 2013

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

January 23, 2013

Memorandum

To: Assistant Field Office Manager Minerals
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development Maverick Unit,
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following horizontal well is planned for calendar year 2013 within the Maverick Unit, Uintah County, Utah. This well was previously permitted under the Natural Buttes Unit as a Wasatch-Mesaverde gas well.

API #	WELL NAME	LOCATION
(Proposed PZ GREEN RIVER)		
43-047-52514	NBU 921-7J	2211 FSL 2441 FEL Sec 07 T09S R21E
	Lateral 1	0050 FSL 2432 FEL Sec 18 T09S R21E

This office has no objection to permitting the well at this time.

Michael L. Coulthard

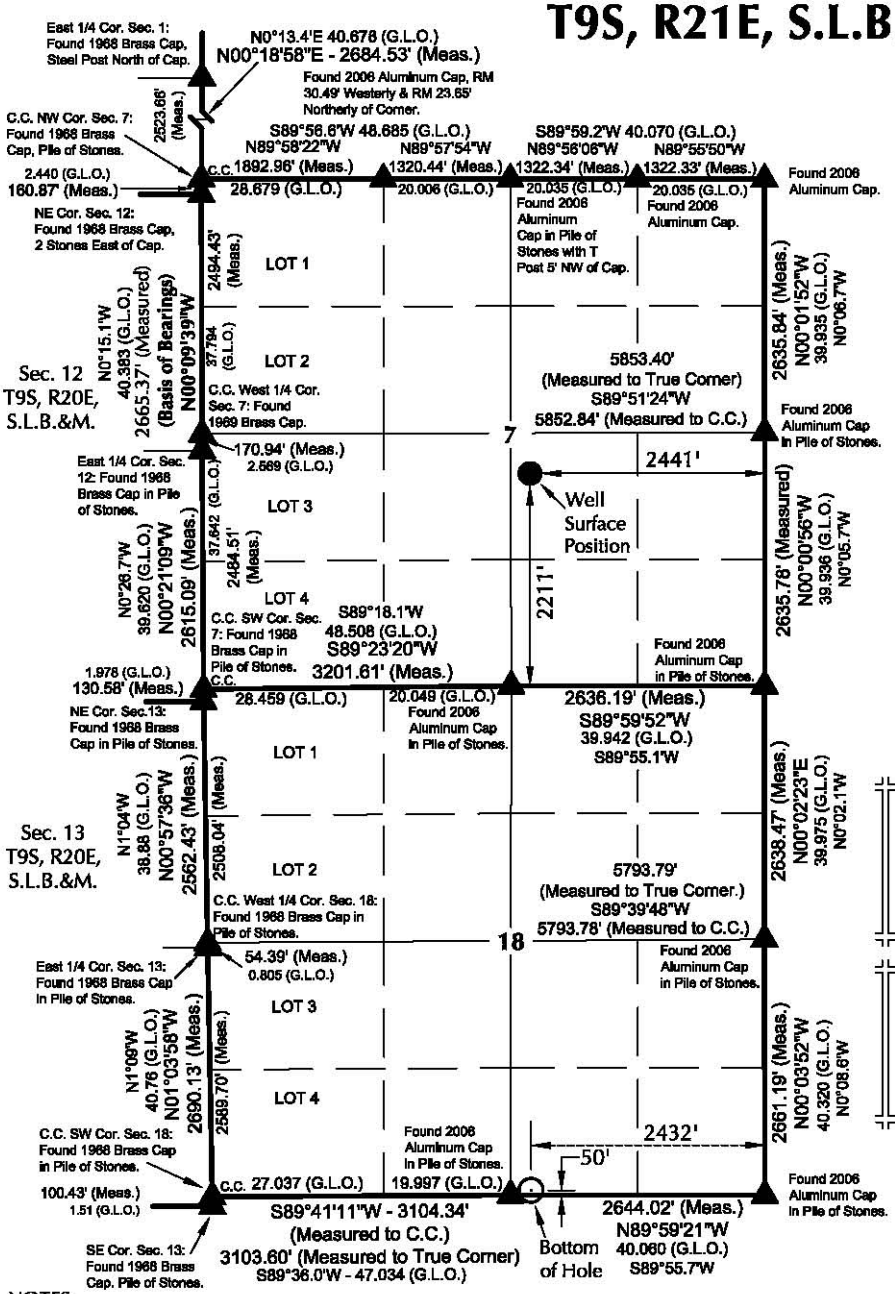
Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2013.01.23 11:02:36 -07'00'

bcc: File - Maverick Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:1-23-13

RECEIVED: Feb. 20, 2013

T9S, R21E, S.L.B.&M.



WELL LOCATION:
NBU 921-7J

ELEV. UNGRADED GROUND = 4710.9'

NBU 921-7J (Surface Position)
NAD 83 LATITUDE = 40.049441° (40° 02' 57.987")
LONGITUDE = 109.593794° (109° 35' 37.658")
NAD 27 LATITUDE = 40.049476° (40° 02' 58.115")
LONGITUDE = 109.593103° (109° 35' 35.172")

NBU 921-7J (Bottom Hole)
NAD 83 LATITUDE = 40.028968° (40° 01' 44.284")
LONGITUDE = 109.593716° (109° 35' 37.379")
NAD 27 LATITUDE = 40.029003° (40° 01' 44.412")
LONGITUDE = 109.593026° (109° 35' 34.894")

NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S00°04'59"E 7460.00' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

2-13-12

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R. LAUGHLIN STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION NO. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

NBU 921-7J
WELL PLAT
50' FSL, 2432' FEL (Bottom Hole)
SW ¼ SE ¼ OF SECTION 18, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 2-13-12	SURVEYED BY: J.W.	SHEET NO: 1
DATE DRAWN: 2-13-12	DRAWN BY: T.J.R.	1 OF 12
SCALE: 1" = 2000'	Date Last Revised: 12-19-12 T.J.R.	

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 921-7J
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Site:	NBU 921-7J	**North Reference:**	True
Well:	NBU 921-7J	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-7J, SECTION 7 T9S R21E

Site Position:		**Northing:**	14,547,171.17 usft	**Latitude:**	40.0494760
From:	Lat/Long	**Easting:**	2,034,152.24 usft	**Longitude:**	-109.5931030
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.91 °

Well NBU 921-7J, 2211 FSL & 2441 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,547,171.17 usft	**Latitude:**	40.0494760
	+E/-W	0.00 ft	**Easting:**	2,034,152.24 usft	**Longitude:**	-109.5931030
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	4,711.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2012/12/27	10.92	65.85	52,193

Design PLAN #1 PRELIMINARY

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	179.83

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,602.04	0.00	0.00	4,602.04	0.00	0.00	0.00	0.00	0.00	0.00	
5,502.04	90.00	179.83	5,175.00	-572.96	1.65	10.00	10.00	0.00	179.83	
12,385.42	90.00	179.83	5,175.00	-7,456.30	21.53	0.00	0.00	0.00	0.00	PBHL_NBU 921-7J (5

RECEIVED: Feb. 20, 2013

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 921-7J
Well: NBU 921-7J
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 7 T9S R21E
System Datum:	Mean Sea Level

WELL DETAILS: NBU 921-7J

GL 4711 & KB 19 @ 4730.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14547171.17	2034152.24	40.0494760	-109.5931030

SECTION DETAILS

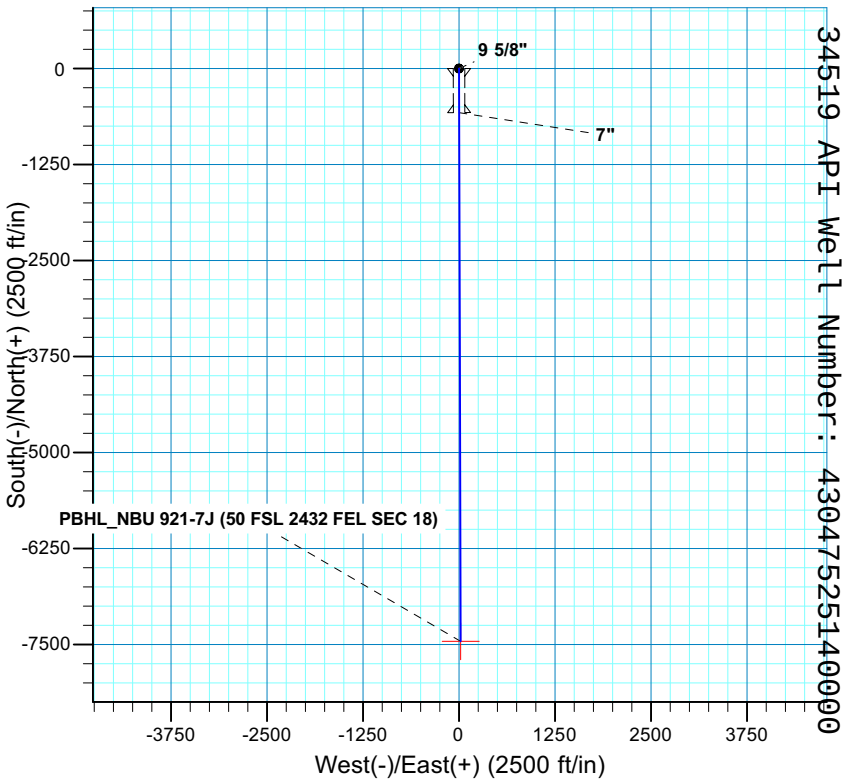
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4602.04	0.00	0.00	4602.04	0.00	0.00	0.00	0.00	0.00	
5502.04	90.00	179.83	5175.00	-572.96	1.65	10.00	179.83	572.96	
12385.42	90.00	179.83	5175.00	-7456.30	21.53	0.00	0.00	7456.33	PBHL

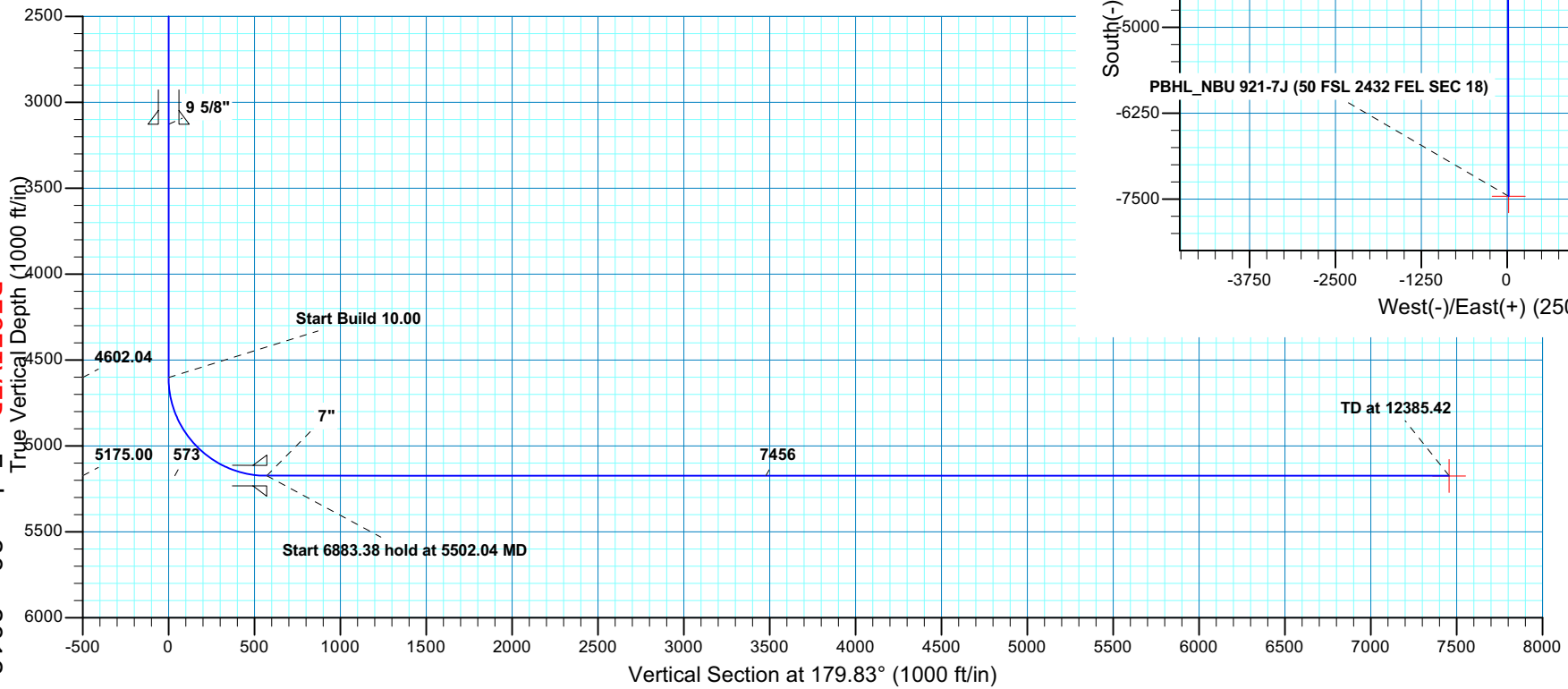
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1741.00	1741.00	GREEN RIVER
2052.00	2052.00	BIRDS NEST
2678.00	2678.00	MAHOGANY
4651.00	4651.06	GREEN RIVER LOWER
5120.00	5248.94	UTELAND BUTTES

CASING DETAILS

TVD	MD	Name	Size
3128.00	3128.00	9 5/8"	9.625
5175.00	5502.04	7"	7.000

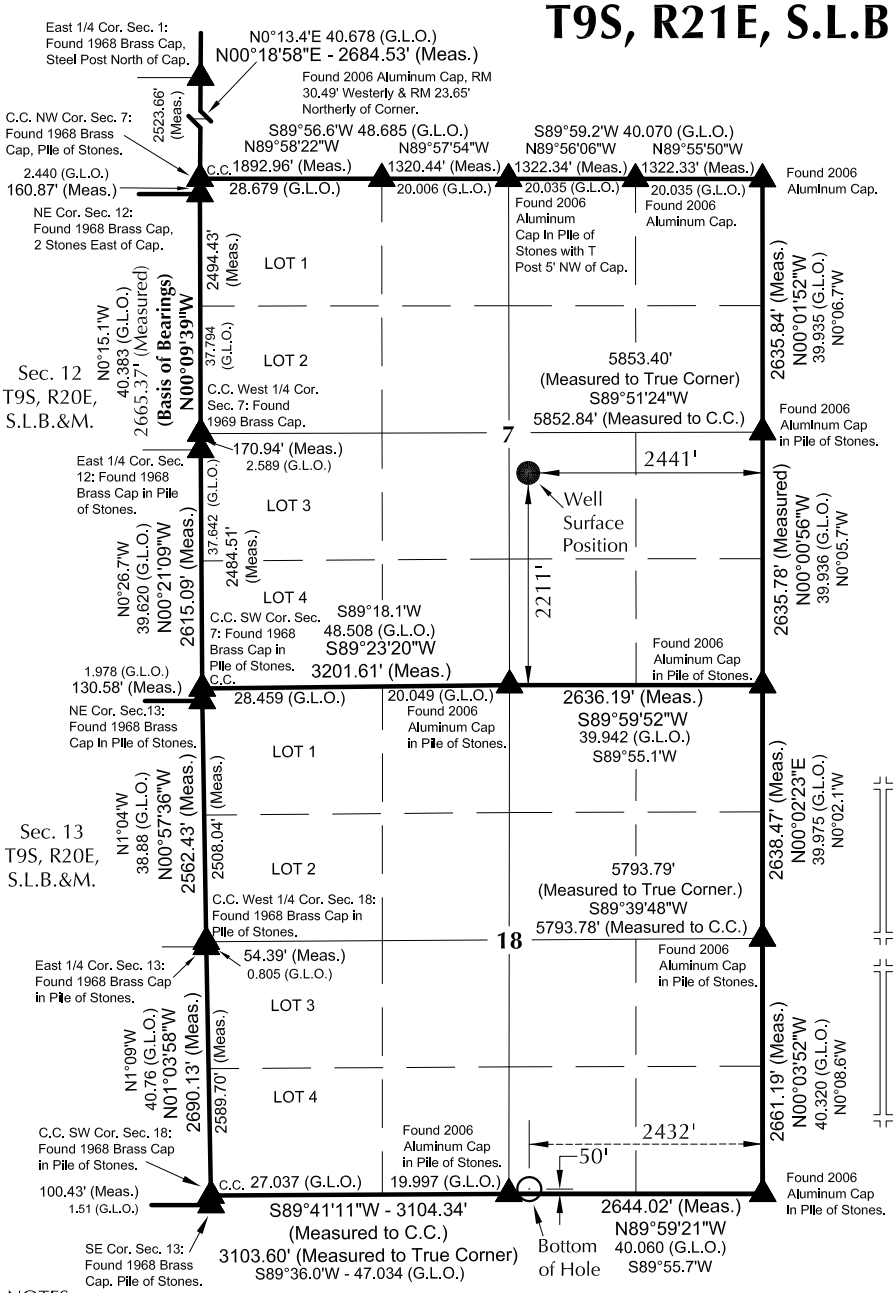




Plan: PLAN #1 PRELIMINARY (NBU 921-7J/OH)

Created By: RobertScott Date: 11:02, January 02 2013

T9S, R21E, S.L.B.&M.



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THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

12-19-12

PROFESSIONAL LAND SURVEYOR
REGISTRATION NO. 6028691
STATE OF UTAH

STATE OF UTAH — PROFESSIONAL LAND SURVEYOR — No.6028691 JOHN R SLAUGH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

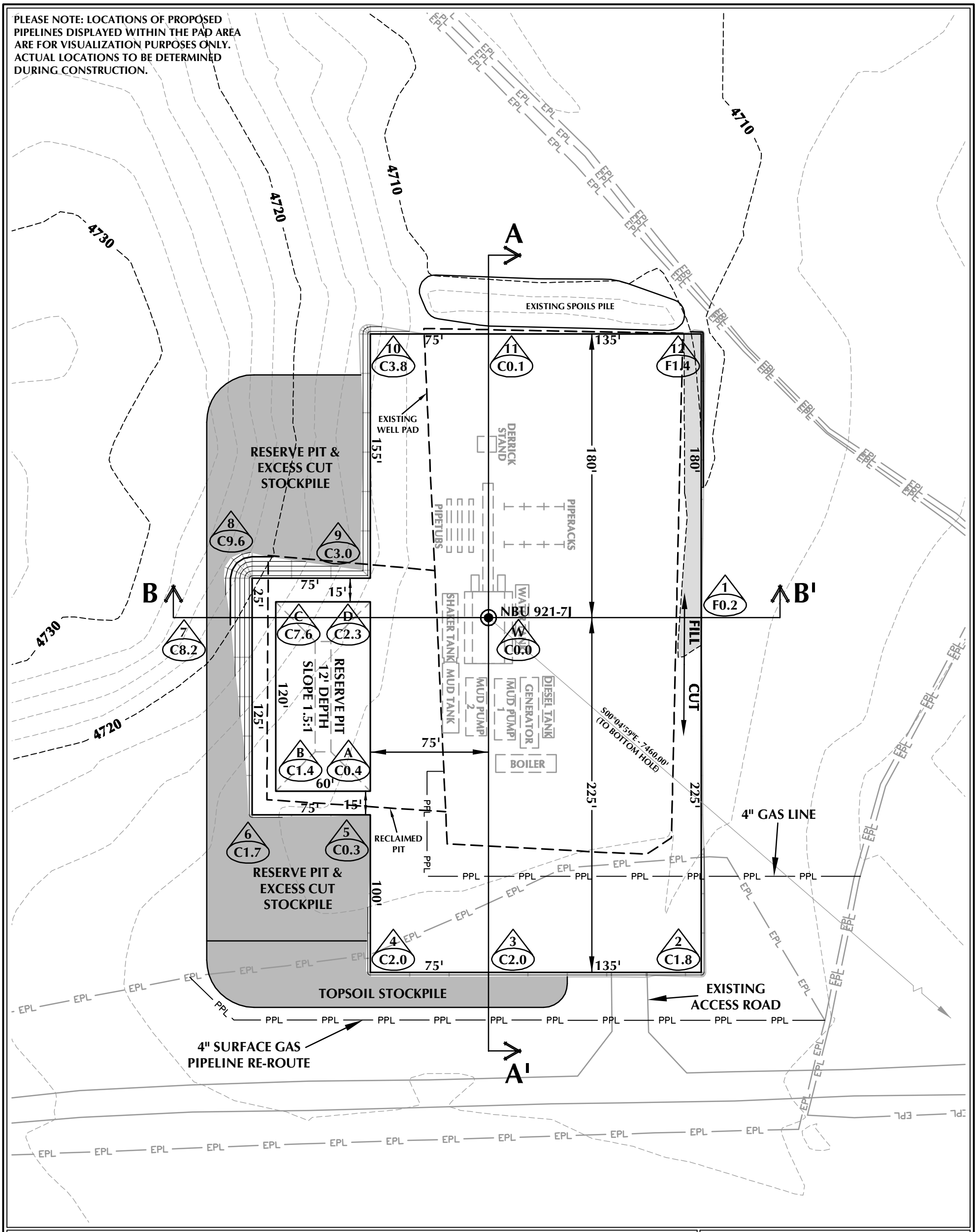
NBU 921-7J
WELL PLAT
50' FSL, 2432' FEL (Bottom Hole)
SW ¼ SE ¼ OF SECTION 18, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 2-13-12	SURVEYED BY: J.W.	SHEET NO: 1
DATE DRAWN: 2-13-12	DRAWN BY: T.J.R.	1 OF 12
SCALE: 1" = 2000'	Date Last Revised: 12-19-12 T.J.R.	

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 921-7J DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4710.9'
FINISHED GRADE ELEVATION = 4710.9'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 2.32 ACRES
TOTAL DISTURBANCE AREA = 2.99 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 2,385 C.Y.
TOTAL FILL FOR WELL PAD = 408 C.Y.
TOPSOIL @ 6" DEPTH = 948 C.Y.
EXCESS MATERIAL = 1,977 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 1,950 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 7,020 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

WELL PAD - NBU 921-7J

WELL PAD - LOCATION LAYOUT
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60'	DATE: 3/22/12	SHEET NO: 2
REVISED: ANK 12/19/12		2 OF 12

K:\ANADARKO\2011\2011_80_NBU_921-7\DWGS\NBU 921-7J.dwg, 12/19/2012 5:05:50 PM, jacob

RECEIVED: Feb. 06, 2013

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

4730 4720 4710 4710

A A'

EXISTING SPOILS PILE

10 C3.8 | 11 C0.1 | 12 F1.4

75' 135'

EXISTING WELL PAD

COMPLETIONS PIT & EXCESS CUT STOCKPILE

155' 180' 180'

DERRICK STAND PIPETUBS PIPERACKS

8 C9.6 | 9 C3.0

75' 15' 25'

B B'

1 F0.2

NBU 921-7J

7 C8.2

C C7.6 | D C2.3

COMPLETIONS PIT (CUTTINGS AREA) 12' DEPTH SLOPE 1.5:1 120' 125'

CLOSED LOOP EQUIPMENT SHAKER TANK MUD TANK MUD PUMP 2 WATER TANK

W C0.0

MUD PUMP 1 GENERATOR DIESEL TANK BOILER

FILL CUT

S00°04'59"E - 7460.00' (TO BOTTOM HOLE)

75'

B C1.4 | A C0.4

60' 75' 15'

225' 225'

4" GAS LINE

6 C1.7 | 5 C0.3

RECLAIMED PIT

COMPLETIONS PIT & EXCESS CUT STOCKPILE

100'

4 C2.0 | 3 C2.0 | 2 C1.8

75' 135'

TOPSOIL STOCKPILE

EXISTING ACCESS ROAD

4" SURFACE GAS PIPELINE RE-ROUTE

EPL PPL

WELL PAD - NBU 921-7J (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4710.9'
FINISHED GRADE ELEVATION = 4710.9'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 2.32 ACRES
TOTAL DISTURBANCE AREA = 2.99 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

WELL PAD - LOCATION LAYOUT
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
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Phone 307-674-0609
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WELL PAD QUANTITIES

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TOTAL FILL FOR WELL PAD = 408 C.Y.
TOPSOIL @ 6" DEPTH = 948 C.Y.
EXCESS MATERIAL = 1,977 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 1,950 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 7,020 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

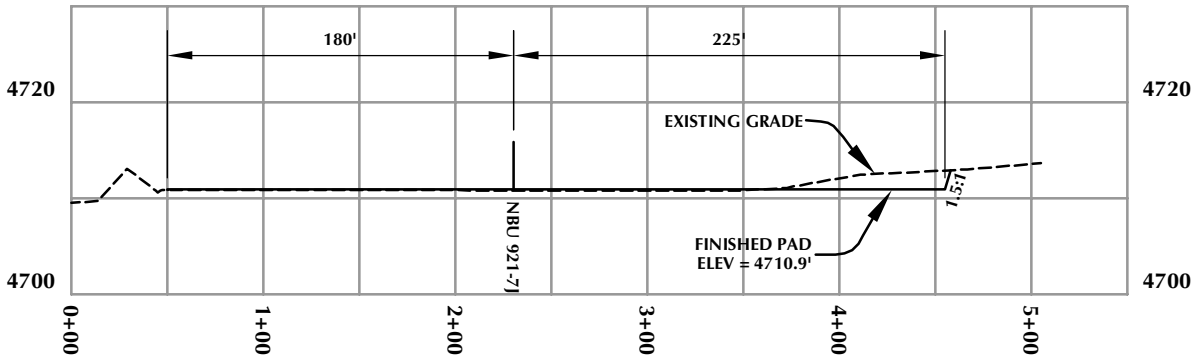
HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

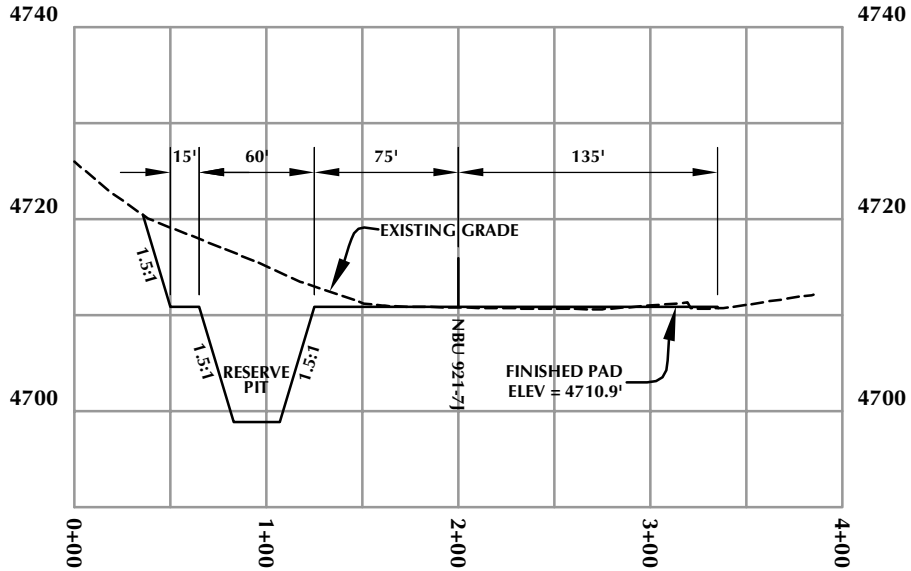
SCALE: 1"=60'	DATE: 4/5/12	SHEET NO:
REVISED: ANK 12/19/12		2B 2B OF 12

K:\ANADARKO\2011\2011_80_NBU_921-7\DWGS\NBU 921-7J.dwg, 12/19/2012 5:06:15 PM, jacob

RECEIVED: Feb. 06, 2013



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

WELL PAD - CROSS SECTIONS
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 3/22/12 | SHEET NO: 3 3 OF 12
REVISED:

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PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.

4730 4720 4710 4710 4720 4730

PROPOSED WELL PAD

EXISTING WELL PAD

NBU 921-7J

RESERVE PIT

FILL

CUT

90'

METAL CONTAINMENT

TANK (TYPICAL)

SEPARATOR/ METER HOUSE

75'

15'

30'

4" GAS LINE

DISTURBANCE BOUNDARY

EXISTING ACCESS ROAD

4" SURFACE GAS PIPELINE RE-ROUTE

EPL PPL

WELL PAD - NBU 921-7J RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 2.99 ACRES
RECLAMATION AREA = 2.42 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 0.57 ACRES

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

WELL PAD - RECLAMATION LAYOUT
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60'	DATE: 3/22/12	SHEET NO: 4 4 OF 12
REVISED:	ANK 12/13/12	

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PHOTO VIEW: FROM PROPOSED WELL HEAD TO CORNER 1 CAMERA ANGLE: SOUTHEASTERLY

PHOTO VIEW: FROM EXISTING ACCESS ROAD CAMERA ANGLE: NORTHEASTERLY

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WELL PAD - NBU 921-7J

LOCATION PHOTOS
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
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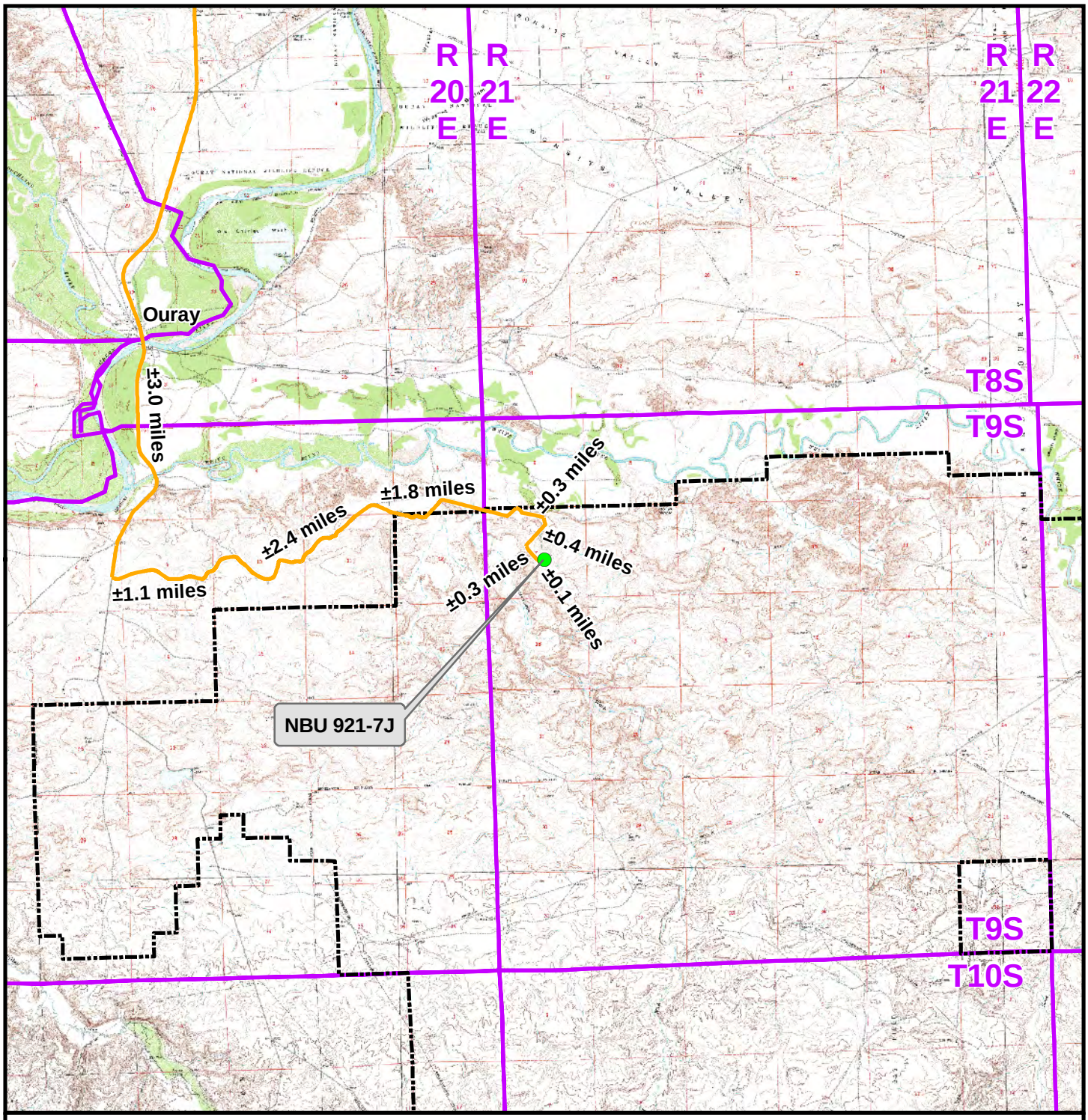
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 2-14-12	PHOTOS TAKEN BY: J.W.	SHEET NO: 5
DATE DRAWN: 2-15-12	DRAWN BY: T.J.R.	5 OF 12
Date Last Revised:		

RECEIVED: Feb. 06, 2013



Legend

Distance From Well Pad - NBU 921-7J To Unit Boundary: ±3,064ft

Proposed Well Location

Natural Buttes Unit Boundary

Access Route - Proposed

WELL PAD - NBU 921-7J

TOPO A
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH

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1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

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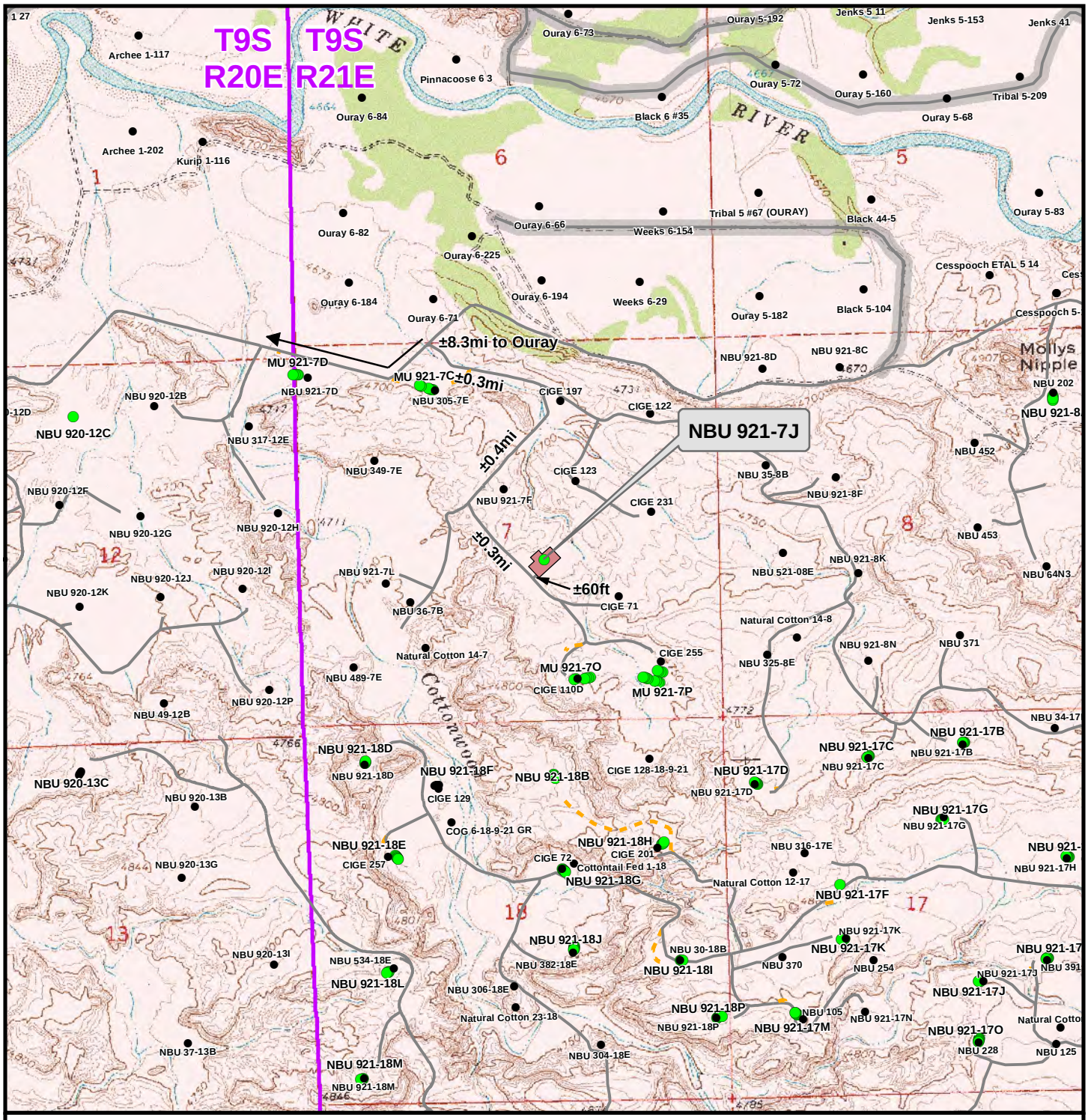
SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 6
DRAWN: TL	DATE: 22 Mar 2012	6 OF 12
REVISED:	DATE:	

RECEIVED: Feb. 06, 2013



Legend

Well - Proposed | Well - Existing | Well Pad | Road - Proposed | Road - Existing | County Road | Bureau of Land Management | Indian Reservation | State | Private

Total Proposed Road Length: ±0ft

WELL PAD - NBU 921-7J

TOPO B
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 7	7 OF 12
DRAWN: TL	DATE: 22 Mar 2012		
REVISED: TL	DATE: 17 Dec 2012		

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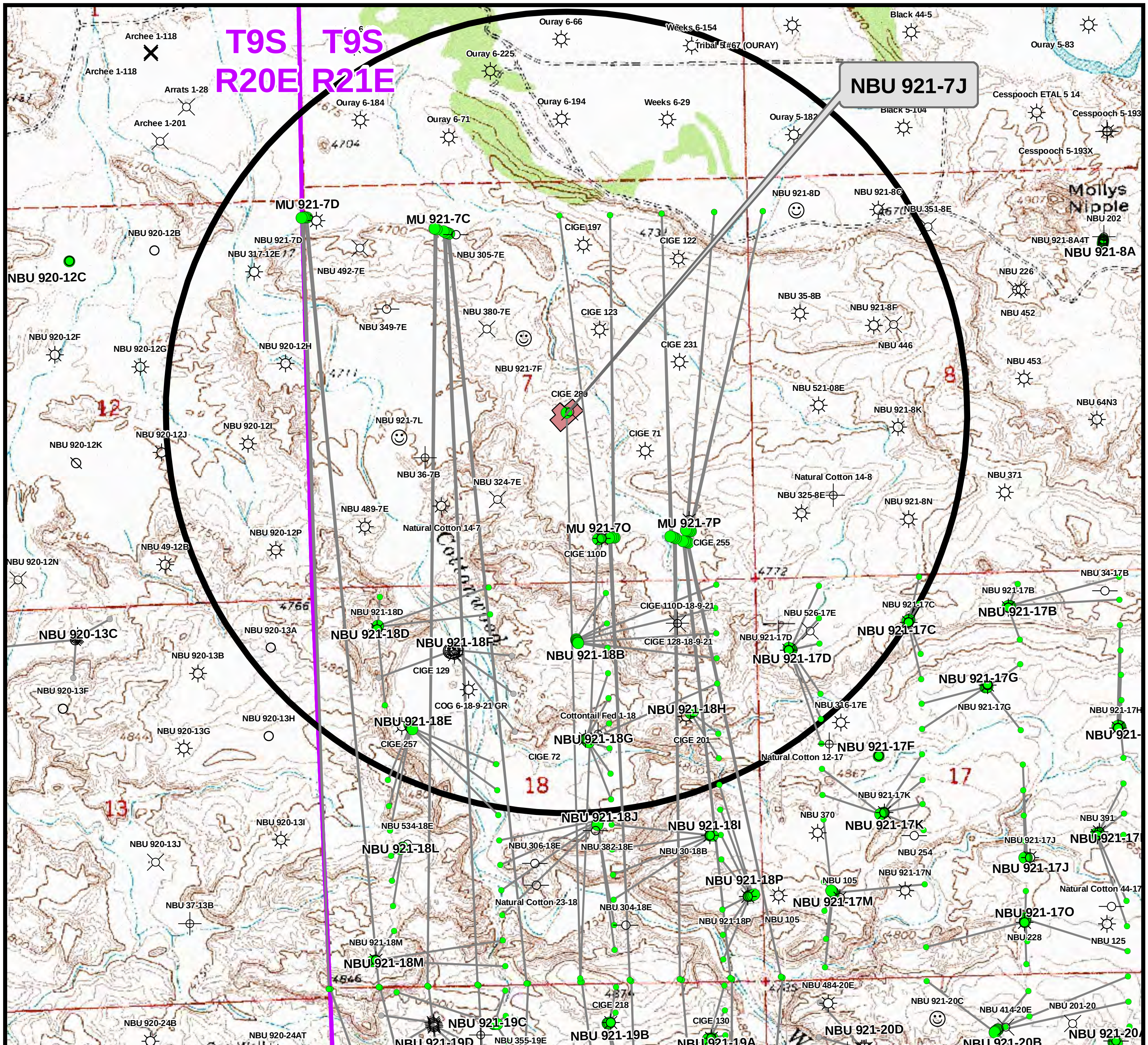

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 921-7J	CIGE 218	708ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 921-7J

TOPO C
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 8
DRAWN: TL	DATE: 22 Mar 2012	
REVISED: TL	DATE: 17 Dec 2012	8 OF 12

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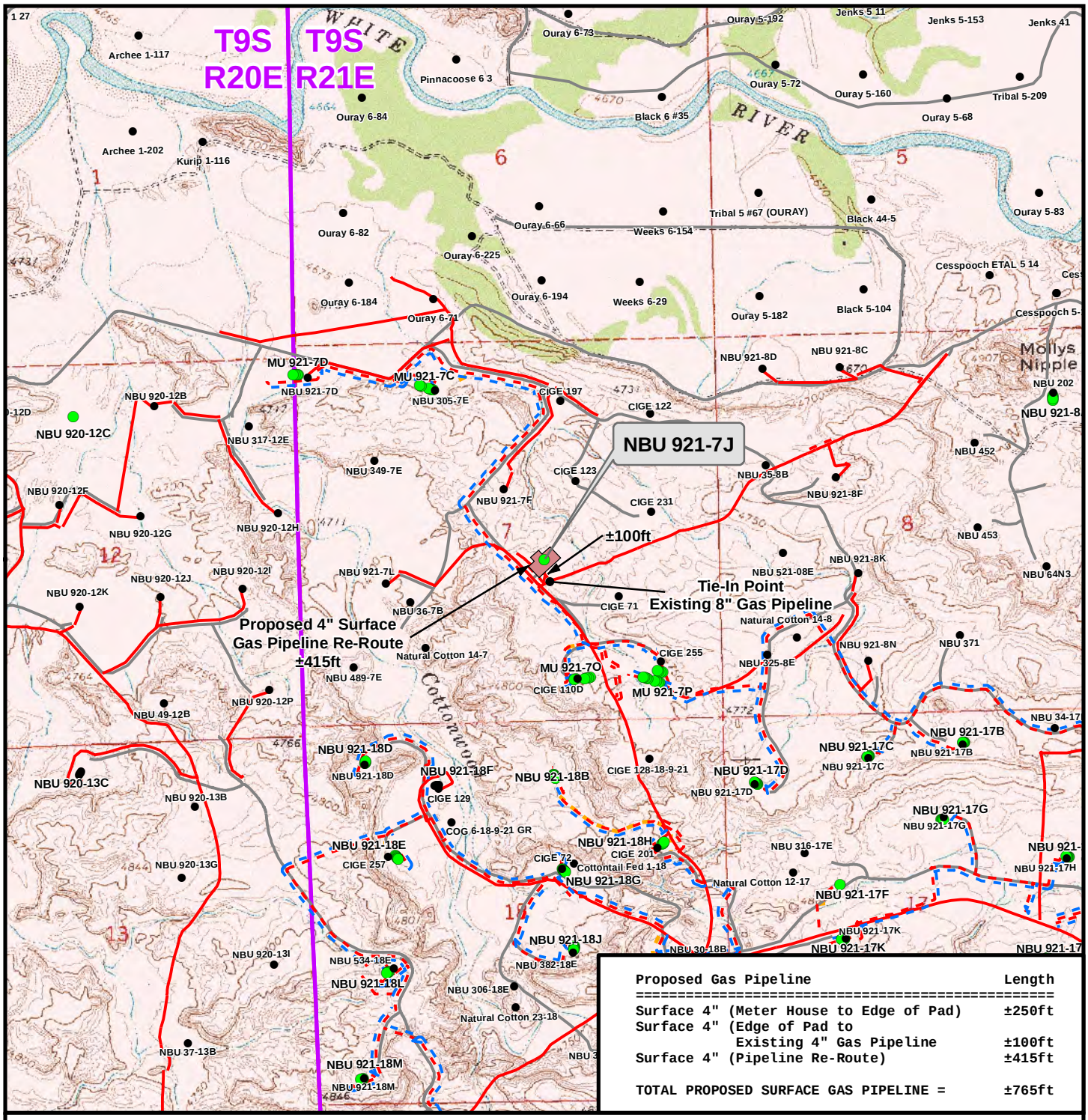

Proposed Gas Pipeline	Length
Surface 4" (Meter House to Edge of Pad)	±250ft
Surface 4" (Edge of Pad to Existing 4" Gas Pipeline	±100ft
Surface 4" (Pipeline Re-Route)	±415ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±765ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO D
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 9	
DRAWN: TL	DATE: 22 Mar 2012	9 OF 12	
REVISED: TL	DATE: 17 Dec 2012		

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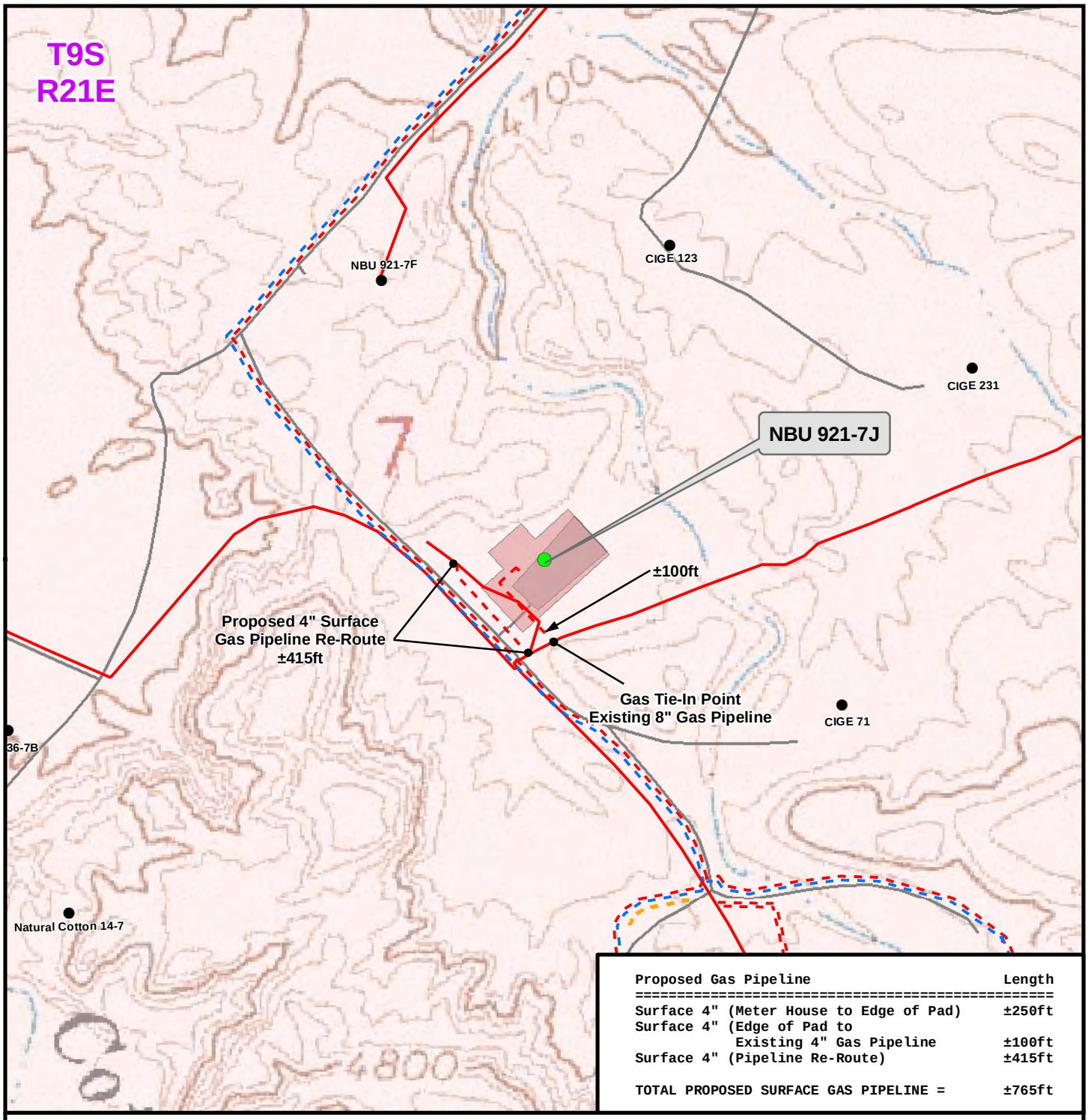

Proposed Gas Pipeline	Length
Surface 4" (Meter House to Edge of Pad)	±250ft
Surface 4" (Edge of Pad to Existing 4" Gas Pipeline	±100ft
Surface 4" (Pipeline Re-Route)	±415ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±765ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 500ft	NAD83 USP Central	SHEET NO: 10	
DRAWN: TL	DATE: 22 Mar 2012	10 OF 12	
REVISED: TL	DATE: 17 Dec 2012		

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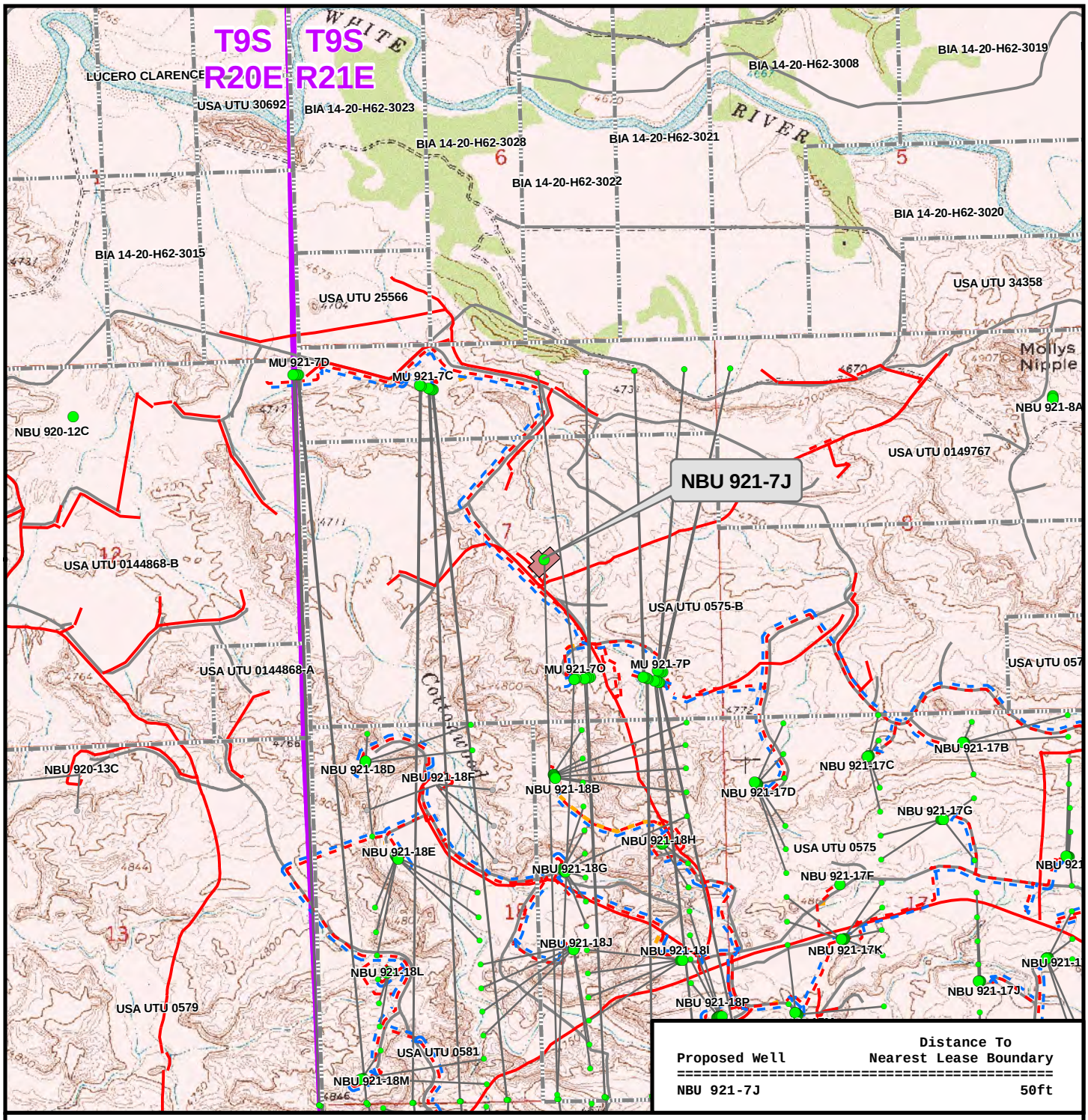

Proposed Well	Distance To Nearest Lease Boundary
NBU 921-7J	50ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 921-7J

TOPO E
NBU 921-7J
LOCATED IN SECTION 7, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

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2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 11	
DRAWN: TL	DATE: 22 Mar 2012	11 OF 12	
REVISED: TL	DATE: 17 Dec 2012		

File: K:\ANADARKO\2011\2011_80_NBU_921-7J\GIS\Maps_ABCDE\NBU 921-7J\NBU 921-7J_E.mxd, 12/22/2012 11:18:03 AM

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-7J
WELL – NBU 921-7J
Section 7, T9S, R21E, S.L.B.&M.

Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 approximately 13.9 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction along State Highway 88 approximately 16.8 miles to Ouray, Utah. From Ouray, proceed in a southerly direction along the Seep Ridge Road (County B Road 2810) approximately 3.0 miles to a service road to the east. Exit left and proceed in an easterly direction along the service road approximately 1.1 miles to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 2.4 miles to a third service road to the east. Exit right and proceed in an easterly direction along the third service road approximately 1.8 miles to a fourth service road to the southeast. Exit right and proceed in a southeasterly direction along the fourth service road approximately 0.3 miles to a fifth service road to the south. Exit right and proceed in a southerly, then southwesterly direction along the fifth service road approximately 0.4 miles to a sixth service road to the southeast. Exit left and proceed in a southeasterly direction along the sixth service road approximately 0.3 miles to an existing access road to the northeast. Exit left and proceed in a northeasterly direction along the existing access road approximately 65 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 40.0 miles in a southerly direction.

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Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-7J

Surface: 2211 FSL / 2441 FEL NWSE
BHL: 50 FSL / 2432 FEL SWSE

Section 7 T9S R21E

Unitah County, Utah
Mineral Lease: UTU 0575B

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,741'	Water
Birds Nest	2,052'	Water
Mahogany	2,678'	Water
Lower Green River	4,651'	Oil/Gas
TVD	5,175'	
TMD	12,385'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 5,200' TVD approximately equals 2,444 psi

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 1,300 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

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8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

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Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.
Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

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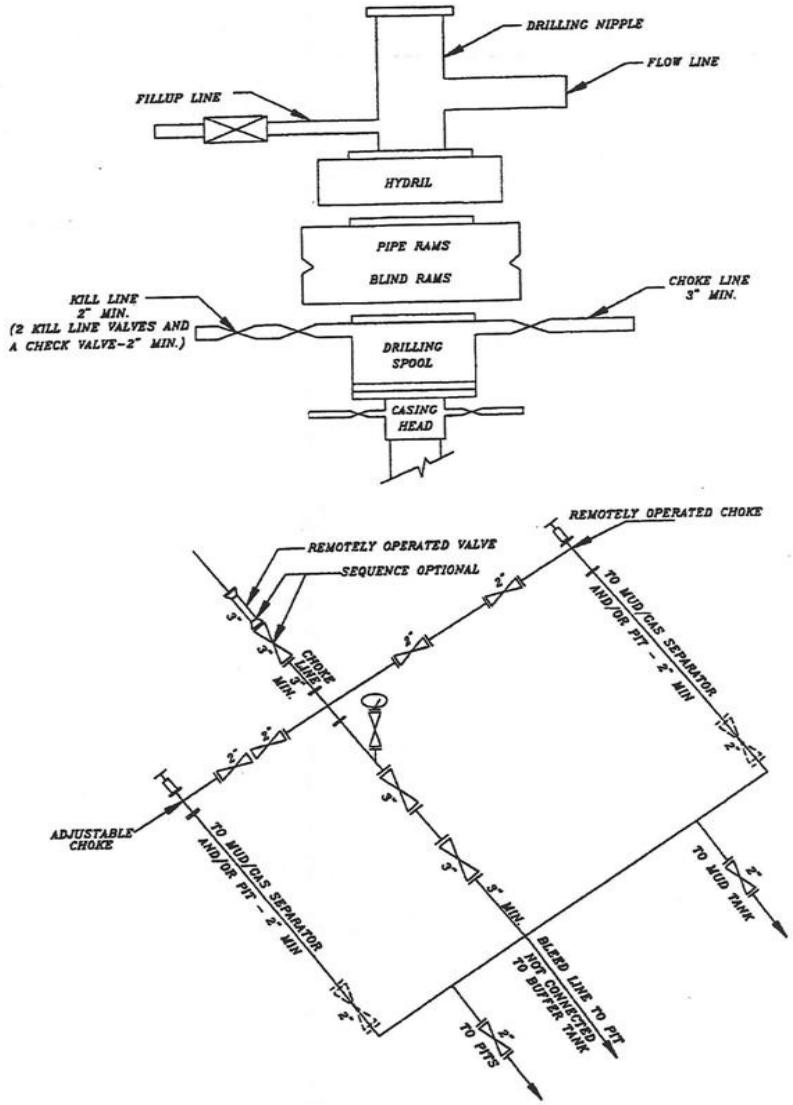
EXHIBIT A
NBU 921-7J



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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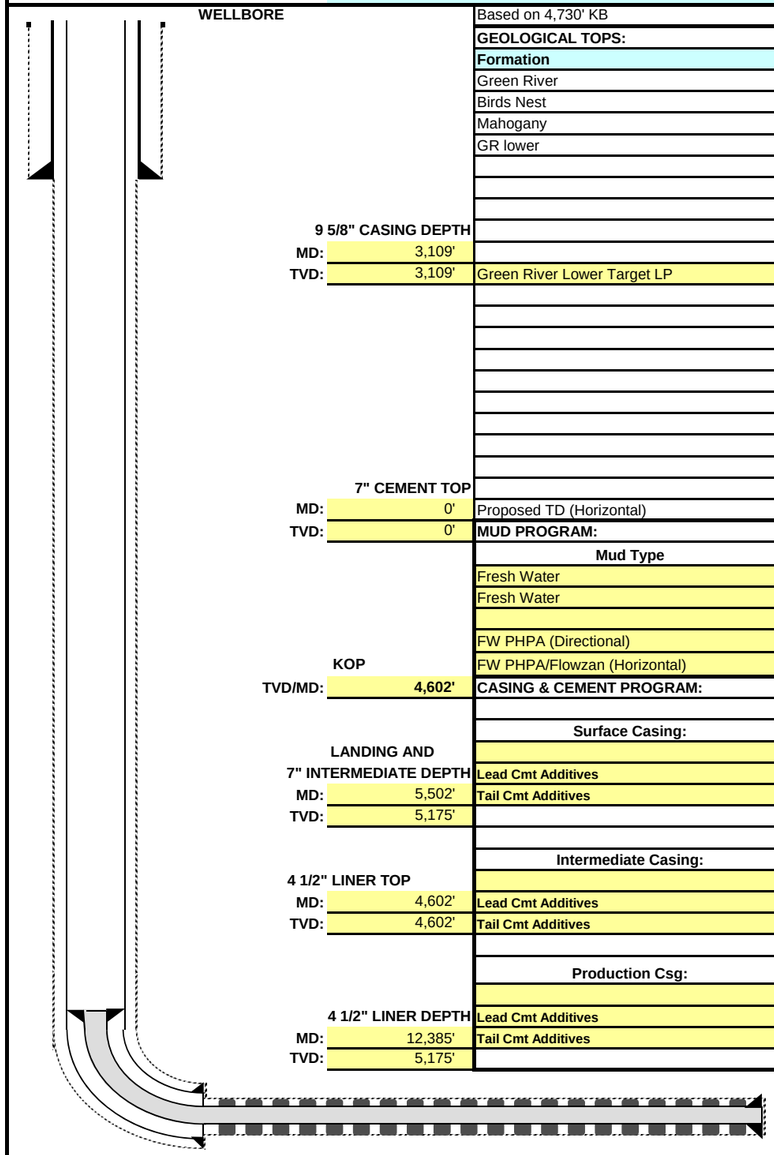
DRILLING AND GEOLOGICAL INFORMATION

Based on Survey Plat

PROSPECT/FIELD	Uintah		**COUNTY**	Uintah	**GROUND ELEVATION**	GR 4,711'	**Source of drilling program:**	Danny Showers
OPERATOR	Kerr-McGee Oil & Gas Onshore. L.P.		**LEASE**	NBU 921-7J	**RIG HT. 19.0'** **KB**	KB ± 4,730'	**Source of geological tops:**	Sean Kelly
LEASE & WELL NO.	NBU 921-7J		**STATE**	Utah			**Source of log information:**	
SURFACE LOCATION	2211' FSL 2441' FEL		**BOTTOM HOLE LOCATION**	50' FSL 2432' FEL				
	Section 7 T9S R21E			Section 18 T9S R21E			**SURFACE N/S**	2211' FSL
LAT/LONG (NAD83)	40.049441 -109.593794		**BOTTOM HOLE LAT/LONG (NAD83)**	40.028968 -109.593716			**SURFACE E/W**	2441' FEL
LAT/LONG (NAD27)	40.049476 -109.593103		**BOTTOM HOLE LAT/LONG (NAD27)**	40.029003 -109.593026			**7" CSG SHOE N/S (REF SURF)**	-572'
AZIMUTH OF HORIZONTAL	179.830000		**STRIKE/DIP OBJECTIVE FORMATION**				**7" CSG SHOE E/W (REF SURF)**	2'
FORM @ TD (PILOT HOLE)	N/A		**FORM @ TD (HORIZONTAL HOLE)**	Green River Lower			**7" CSG SHOE N/S (REF LL)**	1638' FSL Sec. 7
API NUMBER			**AFE NUMBER**				**7" CSG SHOE E/W (REF LL)**	2439' FEL of Sec. 7

WELLBORE



9 5/8" CASING DEPTH
MD: 3,109'
TVD: 3,109'

7" CEMENT TOP
MD: 0'
TVD: 0'

KOP
TVD/MD: 4,602'

LANDING AND 7" INTERMEDIATE DEPTH
MD: 5,502'
TVD: 5,175'

4 1/2" LINER TOP
MD: 4,602'
TVD: 4,602'

4 1/2" LINER DEPTH
MD: 12,385'
TVD: 5,175'

Based on 4,730' KB

Comments

GEOLOGICAL TOPS:

Formation	MD	TVD	Comments
Green River	1,741 '	1,741 '	
Birds Nest	2,052 '	2,052 '	
Mahogany	2,678 '	2,678 '	
GR lower	4,651 '	4,651 '	
Green River Lower Target LP	5,502 '	5,175 '	
Proposed TD (Horizontal)	12,385 '	5,175 '	

LOGGING PROGRAM:

Interval	Type	Log
Surf Csg -TD	Mudlogging	Two-man unit mud logging
HZ Kickoff - Landing	MWD/GR	GR
HZ Lateral	MWD/LWD	GR
	PCL	Triple Combo & FMI - (One tool string)

DST'S: None **CORES:** None

POTENTIAL DRILLING PROBLEMS:
Mechanical Instability when drilling the curve, bring MW up 0.5 ppg per 45 degrees over curve interval

DEVIATION: No deviation restraints based on hardlines as we in the middle of unitized acreage.

MUD PROGRAM:

Mud Type	Interval	Weight	Vis	WL	Remarks
Fresh Water	0' - 3,109' MD	8.4	40 - 45	NC	Spud mud - FW plus bentonite for viscosity & lime for flocculation
Fresh Water	3,109' MD - 4,583' MD	9	28 - 30	<20	Fresh water with bentonite for sweeps
FW PHPA (Directional)	4,602' - 5,483' MD	10.2	35 - 50	<10	MW & PHPA to maintain stability
FW PHPA/Flowzan (Horizontal)	5,483' MD - 12,366' MD	9.5	35 - 50	<10	Fresh water/PHPA

Surface Formation:

CASING & CEMENT PROGRAM:

	Size	Wt (ppf)	Grade	Hole	Top	Bottom	Cement:	Ft	Sx	Density	Yield	GPS	Type
Surface Casing:	9.625"	36.0	J-55	12.25"	0'	3,109'	**Lead**	1,400 '	±420 sx	12.5	2.1	11.97	Type III
							Tail	1,709 '	±500 sx	14.3	1.46	7.18	Type III
Lead Cmt Additives	2.5% SMS, 0.25 lbs/sk Cello Flake, 0.08 lbs/sk Static free												
Tail Cmt Additives	2% Calcium Chloride, 0.25 lbs/sk Cello Flake, 0.08 lbs/sk Static free												
Intermediate Casing:	7.000"	26.0	HCP-110	8.75"	0'	5,502'	**Lead**	5,002 '	±530 sx	12.5	1.92	10.54	Premium Lite
							Tail	500 '	±90 sx	15.8	1.16		Class G
Lead Cmt Additives	3% Bentonite, 0.4% FL - 52, 0.25 lb/sk Cello Flake												
Tail Cmt Additives	20% S-8, 0.4% FL-52, 0.1% SMS												
Production Csg:	4.500"	11.6	HCP-110	6.125"	4,602'	12,385'	**Lead**						Uncemented/Perforated Liner
							Tail						
Lead Cmt Additives													
Tail Cmt Additives													

Lateral Length 6,883'

TOE / 4 ½" LINER SETTING DEPTH:
MD: 12,385' **TVD:** 5,175'

PILOT HOLE:
MD: 0'
TVD: 0'

BOTTOM HOLE PRESSURE

Formation:	Green River	2,444	psi @	5,200'	or Gradient:	0.47	psi/ft
			psi @		or Gradient:		psi/ft

Prepared by: Danny Showers **Date:** 01/30/13 **Doc:** Well Draft Drilling Diagram.xls

RECEIVED: Feb. 06, 2013

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 921-7J
Well: NBU 921-7J
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 7 T9S R21E
System Datum:	Mean Sea Level

WELL DETAILS: NBU 921-7J

GL 4711 & KB 19 @ 4730.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14547171.17	2034152.24	40.0494760	-109.5931030

SECTION DETAILS

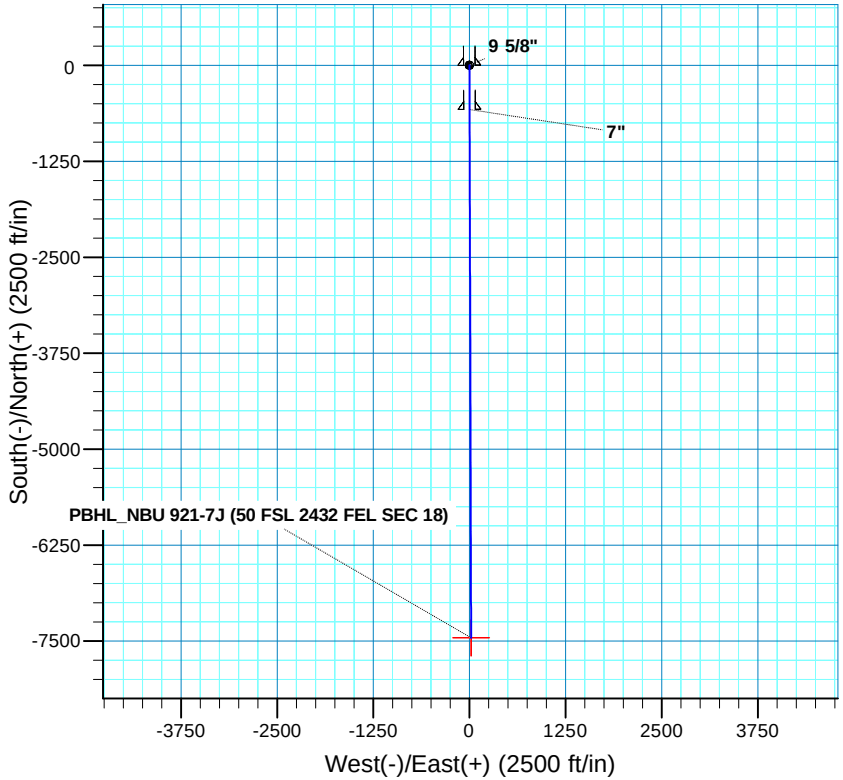
MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4602.04	0.00	0.00	4602.04	0.00	0.00	0.00	0.00	0.00	
5502.04	90.00	179.83	5175.00	-572.96	1.65	10.00	179.83	572.96	
12385.42	90.00	179.83	5175.00	-7456.30	21.53	0.00	0.00	7456.33	PBHL

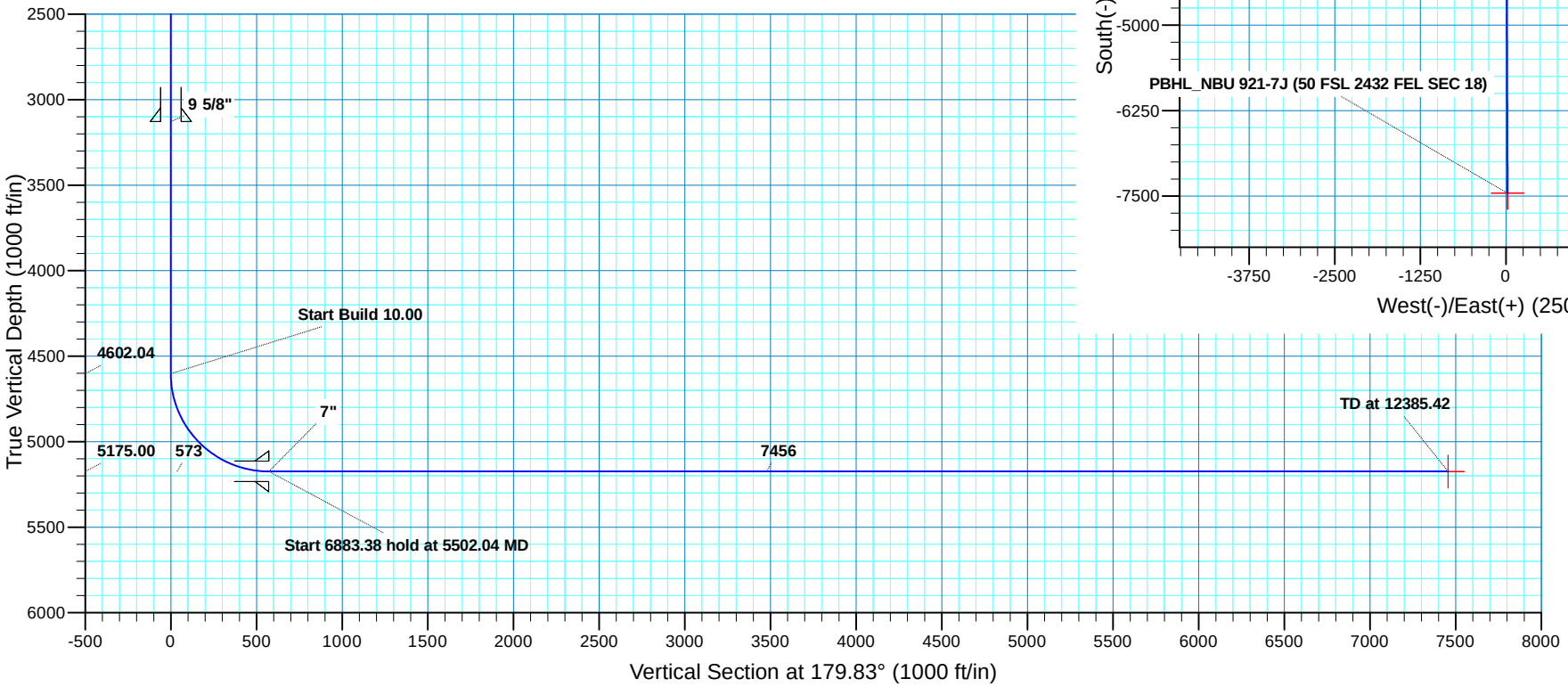
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1741.00	1741.00	GREEN RIVER
2052.00	2052.00	BIRDS NEST
2678.00	2678.00	MAHOGANY
4651.00	4651.06	GREEN RIVER LOWER
5175.00	5502.04	GREEN RIVER LOWER TARGET

CASING DETAILS

TVD	MD	Name	Size
3128.00	3128.00	9 5/8"	9.625
5175.00	5502.04	7"	7.000





Plan: PLAN #1 PRELIMINARY (NBU 921-7J/OH)

Created By: RobertScott Date: 14:16, January 30 2013

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 921-7J
Well: NBU 921-7J
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

WELL DETAILS: NBU 921-7J

GL 4711 & KB 19 @ 4730.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14547171.17	2034152.24	40.0494760	-109.5931030

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	5175.00	-7456.30	21.53	14539716.16	2034291.59	40.0290030	-109.5930260	Point

- plan hits target center

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4602.04	0.00	0.00	4602.04	0.00	0.00	0.00	0.00	0.00	
5502.04	90.00	179.83	5175.00	-572.96	1.65	10.00	179.83	572.96	
12385.42	90.00	179.83	5175.00	-7456.30	21.53	0.00	0.00	7456.33	PBHL_NBU 921-7J (50 FSL 2432 FEL SEC 18)

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 7 T9S R21E
System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name	Size
3128.00	3128.00	9 5/8"	9.625
5175.00	5502.04	7"	7.000

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1741.00	1741.00	GREEN RIVER
2052.00	2052.00	BIRDS NEST
2678.00	2678.00	MAHOGANY
4651.00	4651.06	GREEN RIVER LOWER
5175.00	5502.04	GREEN RIVER LOWER TARGET

RECEIVED: Feb. 06, 2013

Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 921-7J
NBU 921-7J

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

30 January, 2013

Anadarko Petroleum Corporation

RECEIVED: Feb. 06, 2013

Scientific Drilling

Planning Report

Anadarko Petroleum Corporation

Database:	Denver Sales Office Db	**Local Co-ordinate Reference:**	Well NBU 921-7J
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Site:	NBU 921-7J	**North Reference:**	True
Well:	NBU 921-7J	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-7J, SECTION 7 T9S R21E

Site Position:		**Northing:**	14,547,171.17 usft	**Latitude:**	40.0494760
From:	Lat/Long	**Easting:**	2,034,152.24 usft	**Longitude:**	-109.5931030
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.91 °

Well NBU 921-7J, 2211 FSL & 2441 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,547,171.17 usft	**Latitude:**	40.0494760
	+E/-W	0.00 ft	**Easting:**	2,034,152.24 usft	**Longitude:**	-109.5931030
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	4,711.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/27/2012	10.92	65.85	52,193

Design PLAN #1 PRELIMINARY

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	179.83

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,602.04	0.00	0.00	4,602.04	0.00	0.00	0.00	0.00	0.00	0.00	
5,502.04	90.00	179.83	5,175.00	-572.96	1.65	10.00	10.00	0.00	179.83	
12,385.42	90.00	179.83	5,175.00	-7,456.30	21.53	0.00	0.00	0.00	0.00	PBHL_NBU 921-7J (5

RECEIVED: Feb. 06, 2013

Scientific Drilling

Planning Report

Anadarko Petroleum Corporation

Database:	Denver Sales Office Db	**Local Co-ordinate Reference:**	Well NBU 921-7J
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Site:	NBU 921-7J	**North Reference:**	True
Well:	NBU 921-7J	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,741.00	0.00	0.00	1,741.00	0.00	0.00	0.00	0.00	0.00	0.00
GREEN RIVER									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,052.00	0.00	0.00	2,052.00	0.00	0.00	0.00	0.00	0.00	0.00
BIRDS NEST									
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,678.00	0.00	0.00	2,678.00	0.00	0.00	0.00	0.00	0.00	0.00
MAHOGANY									
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,128.00	0.00	0.00	3,128.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00

Scientific Drilling

Planning Report

Anadarko Petroleum Corporation

Database:	Denver Sales Office Db	**Local Co-ordinate Reference:**	Well NBU 921-7J
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Site:	NBU 921-7J	**North Reference:**	True
Well:	NBU 921-7J	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,602.04	0.00	0.00	4,602.04	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 10.00									
4,651.06	4.90	179.83	4,651.00	-2.10	0.01	2.10	10.00	10.00	0.00
GREEN RIVER LOWER									
4,700.00	9.80	179.83	4,699.52	-8.35	0.02	8.35	10.00	10.00	0.00
4,800.00	19.80	179.83	4,796.09	-33.86	0.10	33.86	10.00	10.00	0.00
4,900.00	29.80	179.83	4,886.75	-75.74	0.22	75.74	10.00	10.00	0.00
5,000.00	39.80	179.83	4,968.77	-132.74	0.38	132.74	10.00	10.00	0.00
5,100.00	49.80	179.83	5,039.64	-203.10	0.59	203.11	10.00	10.00	0.00
5,200.00	59.80	179.83	5,097.21	-284.71	0.82	284.71	10.00	10.00	0.00
5,300.00	69.80	179.83	5,139.74	-375.08	1.08	375.08	10.00	10.00	0.00
5,400.00	79.80	179.83	5,165.94	-471.45	1.36	471.45	10.00	10.00	0.00
5,500.00	89.80	179.83	5,175.00	-570.91	1.65	570.92	10.00	10.00	0.00
5,502.04	90.00	179.83	5,175.00	-572.95	1.65	572.96	10.00	10.00	0.00
Start 6883.38 hold at 5502.04 MD - GREEN RIVER LOWER TARGET - 7"									
5,600.00	90.00	179.83	5,175.00	-670.91	1.94	670.92	0.00	0.00	0.00
5,700.00	90.00	179.83	5,175.00	-770.91	2.23	770.92	0.00	0.00	0.00
5,800.00	90.00	179.83	5,175.00	-870.91	2.51	870.92	0.00	0.00	0.00
5,900.00	90.00	179.83	5,175.00	-970.91	2.80	970.92	0.00	0.00	0.00
6,000.00	90.00	179.83	5,175.00	-1,070.91	3.09	1,070.92	0.00	0.00	0.00
6,100.00	90.00	179.83	5,175.00	-1,170.91	3.38	1,170.92	0.00	0.00	0.00
6,200.00	90.00	179.83	5,175.00	-1,270.91	3.67	1,270.92	0.00	0.00	0.00
6,300.00	90.00	179.83	5,175.00	-1,370.91	3.96	1,370.92	0.00	0.00	0.00
6,400.00	90.00	179.83	5,175.00	-1,470.91	4.25	1,470.92	0.00	0.00	0.00
6,500.00	90.00	179.83	5,175.00	-1,570.91	4.54	1,570.92	0.00	0.00	0.00
6,600.00	90.00	179.83	5,175.00	-1,670.91	4.82	1,670.92	0.00	0.00	0.00
6,700.00	90.00	179.83	5,175.00	-1,770.91	5.11	1,770.92	0.00	0.00	0.00
6,800.00	90.00	179.83	5,175.00	-1,870.91	5.40	1,870.92	0.00	0.00	0.00
6,900.00	90.00	179.83	5,175.00	-1,970.91	5.69	1,970.92	0.00	0.00	0.00
7,000.00	90.00	179.83	5,175.00	-2,070.91	5.98	2,070.92	0.00	0.00	0.00
7,100.00	90.00	179.83	5,175.00	-2,170.91	6.27	2,170.92	0.00	0.00	0.00
7,200.00	90.00	179.83	5,175.00	-2,270.91	6.56	2,270.92	0.00	0.00	0.00
7,300.00	90.00	179.83	5,175.00	-2,370.91	6.85	2,370.92	0.00	0.00	0.00
7,400.00	90.00	179.83	5,175.00	-2,470.91	7.13	2,470.92	0.00	0.00	0.00
7,500.00	90.00	179.83	5,175.00	-2,570.90	7.42	2,570.92	0.00	0.00	0.00
7,600.00	90.00	179.83	5,175.00	-2,670.90	7.71	2,670.92	0.00	0.00	0.00
7,700.00	90.00	179.83	5,175.00	-2,770.90	8.00	2,770.92	0.00	0.00	0.00
7,800.00	90.00	179.83	5,175.00	-2,870.90	8.29	2,870.92	0.00	0.00	0.00
7,900.00	90.00	179.83	5,175.00	-2,970.90	8.58	2,970.92	0.00	0.00	0.00
8,000.00	90.00	179.83	5,175.00	-3,070.90	8.87	3,070.92	0.00	0.00	0.00
8,100.00	90.00	179.83	5,175.00	-3,170.90	9.15	3,170.92	0.00	0.00	0.00
8,200.00	90.00	179.83	5,175.00	-3,270.90	9.44	3,270.92	0.00	0.00	0.00
8,300.00	90.00	179.83	5,175.00	-3,370.90	9.73	3,370.92	0.00	0.00	0.00
8,400.00	90.00	179.83	5,175.00	-3,470.90	10.02	3,470.92	0.00	0.00	0.00
8,500.00	90.00	179.83	5,175.00	-3,570.90	10.31	3,570.92	0.00	0.00	0.00
8,600.00	90.00	179.83	5,175.00	-3,670.90	10.60	3,670.92	0.00	0.00	0.00
8,700.00	90.00	179.83	5,175.00	-3,770.90	10.89	3,770.92	0.00	0.00	0.00
8,800.00	90.00	179.83	5,175.00	-3,870.90	11.18	3,870.92	0.00	0.00	0.00
8,900.00	90.00	179.83	5,175.00	-3,970.90	11.46	3,970.92	0.00	0.00	0.00
9,000.00	90.00	179.83	5,175.00	-4,070.90	11.75	4,070.92	0.00	0.00	0.00
9,100.00	90.00	179.83	5,175.00	-4,170.90	12.04	4,170.92	0.00	0.00	0.00
9,200.00	90.00	179.83	5,175.00	-4,270.90	12.33	4,270.92	0.00	0.00	0.00

RECEIVED: Feb. 06, 2013

Scientific Drilling

Planning Report

Anadarko Petroleum Corporation

Database:	Denver Sales Office Db	**Local Co-ordinate Reference:**	Well NBU 921-7J
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Site:	NBU 921-7J	**North Reference:**	True
Well:	NBU 921-7J	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,300.00	90.00	179.83	5,175.00	-4,370.90	12.62	4,370.92	0.00	0.00	0.00
9,400.00	90.00	179.83	5,175.00	-4,470.90	12.91	4,470.92	0.00	0.00	0.00
9,500.00	90.00	179.83	5,175.00	-4,570.90	13.20	4,570.92	0.00	0.00	0.00
9,600.00	90.00	179.83	5,175.00	-4,670.90	13.49	4,670.92	0.00	0.00	0.00
9,700.00	90.00	179.83	5,175.00	-4,770.90	13.77	4,770.92	0.00	0.00	0.00
9,800.00	90.00	179.83	5,175.00	-4,870.90	14.06	4,870.92	0.00	0.00	0.00
9,900.00	90.00	179.83	5,175.00	-4,970.89	14.35	4,970.92	0.00	0.00	0.00
10,000.00	90.00	179.83	5,175.00	-5,070.89	14.64	5,070.92	0.00	0.00	0.00
10,100.00	90.00	179.83	5,175.00	-5,170.89	14.93	5,170.92	0.00	0.00	0.00
10,200.00	90.00	179.83	5,175.00	-5,270.89	15.22	5,270.92	0.00	0.00	0.00
10,300.00	90.00	179.83	5,175.00	-5,370.89	15.51	5,370.92	0.00	0.00	0.00
10,400.00	90.00	179.83	5,175.00	-5,470.89	15.80	5,470.92	0.00	0.00	0.00
10,500.00	90.00	179.83	5,175.00	-5,570.89	16.08	5,570.92	0.00	0.00	0.00
10,600.00	90.00	179.83	5,175.00	-5,670.89	16.37	5,670.92	0.00	0.00	0.00
10,700.00	90.00	179.83	5,175.00	-5,770.89	16.66	5,770.92	0.00	0.00	0.00
10,800.00	90.00	179.83	5,175.00	-5,870.89	16.95	5,870.92	0.00	0.00	0.00
10,900.00	90.00	179.83	5,175.00	-5,970.89	17.24	5,970.92	0.00	0.00	0.00
11,000.00	90.00	179.83	5,175.00	-6,070.89	17.53	6,070.92	0.00	0.00	0.00
11,100.00	90.00	179.83	5,175.00	-6,170.89	17.82	6,170.92	0.00	0.00	0.00
11,200.00	90.00	179.83	5,175.00	-6,270.89	18.10	6,270.92	0.00	0.00	0.00
11,300.00	90.00	179.83	5,175.00	-6,370.89	18.39	6,370.92	0.00	0.00	0.00
11,400.00	90.00	179.83	5,175.00	-6,470.89	18.68	6,470.92	0.00	0.00	0.00
11,500.00	90.00	179.83	5,175.00	-6,570.89	18.97	6,570.92	0.00	0.00	0.00
11,600.00	90.00	179.83	5,175.00	-6,670.89	19.26	6,670.92	0.00	0.00	0.00
11,700.00	90.00	179.83	5,175.00	-6,770.89	19.55	6,770.92	0.00	0.00	0.00
11,800.00	90.00	179.83	5,175.00	-6,870.89	19.84	6,870.92	0.00	0.00	0.00
11,900.00	90.00	179.83	5,175.00	-6,970.89	20.13	6,970.92	0.00	0.00	0.00
12,000.00	90.00	179.83	5,175.00	-7,070.89	20.41	7,070.92	0.00	0.00	0.00
12,100.00	90.00	179.83	5,175.00	-7,170.89	20.70	7,170.92	0.00	0.00	0.00
12,200.00	90.00	179.83	5,175.00	-7,270.89	20.99	7,270.92	0.00	0.00	0.00
12,300.00	90.00	179.83	5,175.00	-7,370.89	21.28	7,370.92	0.00	0.00	0.00
12,385.42	90.00	179.83	5,175.00	-7,456.30	21.53	7,456.33	0.00	0.00	0.00

TD at 12385.42 - PBHL_NBU 921-7J (50 FSL 2432 FEL SEC 18)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 921-7J (50 I - plan hits target center - Point	0.00	0.00	5,175.00	-7,456.30	21.53	14,539,716.16	2,034,291.59	40.0290030	-109.5930260

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
3,128.00	3,128.00	9 5/8"	9.625	12.250
5,502.04	5,175.00	7"	7.000	7.500

Scientific Drilling

Planning Report

Anadarko Petroleum Corporation

Database:	Denver Sales Office Db	**Local Co-ordinate Reference:**	Well NBU 921-7J
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 4711 & KB 19 @ 4730.00ft (ASSUMED)
Site:	NBU 921-7J	**North Reference:**	True
Well:	NBU 921-7J	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,741.00	1,741.00	GREEN RIVER		0.00	
2,052.00	2,052.00	BIRDS NEST		0.00	
2,678.00	2,678.00	MAHOGANY		0.00	
4,651.06	4,651.00	GREEN RIVER LOWER		0.00	
5,502.04	5,175.00	GREEN RIVER LOWER TARGET		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
4,602.04	4,602.04	0.00	0.00	Start Build 10.00
5,502.04	5,175.00	-572.96	1.65	Start 6883.38 hold at 5502.04 MD
12,385.42	5,175.00	-7,456.30	21.53	TD at 12385.42

RECEIVED: Feb. 06, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: MAVERICK

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/30/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to the APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: May 14, 2013

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 5/10/2013

RECEIVED: May. 10, 2013

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047525140000

API: 43047525140000
Well Name: NBU 921-7J
Location: 2211 FSL 2441 FEL QTR NWSE SEC 07 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 5/30/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Teena Paulo **Date:** 5/10/2013
Title: Staff Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: May. 10, 2013

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0575-B

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Ute In

7.UNIT or CA AGREEMENT NAME:
MAVERICK

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-7J

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047525140000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 6/26/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator requests approval for changes in the drilling plan. Specifically, the operator requests approval for a closed loop drilling option. All other aspects of the previously approved drilling plan will not change. Please see closed loop attachment.

Accepted by the Utah Division of Oil, Gas and Mining

Date: July 03, 2013

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		6/26/2013

RECEIVED: Jun. 26, 2013

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

RECEIVED: Jun. 26, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: MAVERICK

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 7/15/2013	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Spud well 07/15/2013 @ 09:00. MIRU Triple A Bucket Rig, drill 20" conductor hole to 40', run 14", 36.7# schedule 10 conductor pipe, cement with 28 sacks ready mix. Anticipated surface spud date and surface casing cement 07/31/2013.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
July 16, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Doreen Green	435 781-9758	Regulatory Analyst II
SIGNATURE N/A		**DATE** 7/16/2013

RECEIVED: Jul. 16, 2013

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By STUART NEILSON Phone Number 435-790-2921
Well Name/Number NBU 921-7J
Qtr/Qtr NW/SE Section 7 Township 9S Range 21E
Lease Serial Number UTU 0575B
API Number 4304752514

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time _ _ AM ☐ PM ☐

BOPE
☐ Initial BOPE test at surface casing point
☐ Other

Date/Time 8/19/13 8 AM ☐ PM ☐

Rig Move
Location To: _

Date/Time __ _ AM ☐ PM ☐

RECEIVED
AUG 18 2013
DIV. OF OIL, GAS & MINING

Remarks WELL 1 OF 1

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By STUART NEILSON Phone Number 435-790-2921
Well Name/Number NBU 921-7J
Qtr/Qtr NW/SE Section 7 Township 9S Range 21E
Lease Serial Number UTU 0575B
API Number 4304752514

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time 8/24/13 8 AM ☐ PM ☐

BOPE

☐ Initial BOPE test at surface casing point
☐ Other

Date/Time 8/25/13 8 AM ☐ PM ☐

Rig Move
Location To: _

Date/Time __ _ AM ☐ PM ☐

RECEIVED
AUG 2 1 2013
DIV. OF OIL, GAS & MINING

Remarks WELL 1 OF 1
INTERMEDIATE CASING & BOPE TEST

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By SYD GRIFFIN Phone Number 435-790-2921
Well Name/Number NBU 921-7J
Qtr/Qtr NW/SE Section 7 Township 9S Range 21E
Lease Serial Number UTU 0575B
API Number 4304752514

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time 09/04/13 11 AM ☐ PM ☐

BOPE
☐ Initial BOPE test at surface casing point
☐ Other

Date/Time _____ AM ☐ PM ☐

Rig Move
Location To: _

Date/Time __ _ AM ☐ PM ☐

RECEIVED
SEP 04 2013
DIV. OF OIL, GAS & MINING

Remarks WELL 1 OF 1
PRODUCTION LINER , TIME IS APPROXIMATE

Sundry Number: 41543 API Well Number: 43047525140000

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/19/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator had to deviate from HZ plan to make sure there was no collision with 2 previous P&A'd wellbores. We respectfully request the BHL be changed from 2432'FEL 50'FSL to 2032' FEL 50' FSL. Please see attached. This is Federal Lease #UTU0575B. This is a State courtest copy. Thank you.

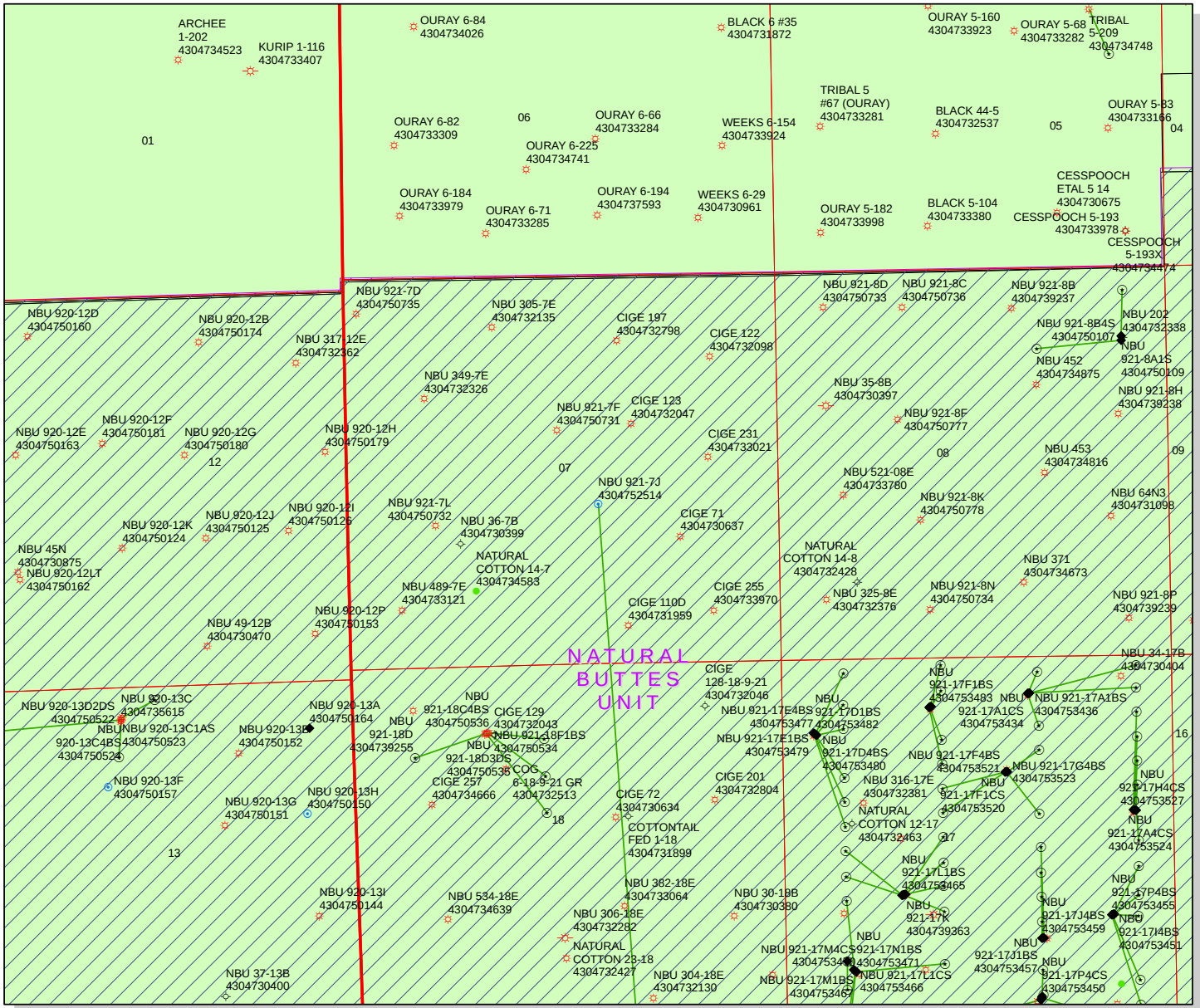
Approved by the Utah Division of Oil, Gas and Mining

Date: September 25, 2013

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Matthew P Wold	720 929-6993	Regulatory Analyst I
SIGNATURE N/A		**DATE** 8/19/2013

RECEIVED: Aug. 19, 2013



API Number: 4304752514

Well Name: NBU 921-7J

Township: T09.0S Range: R21.0E Section: 07 Meridian: S

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared: 9/25/2013
Map Produced by Diana Mason

Wells Query

Status

- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

Units

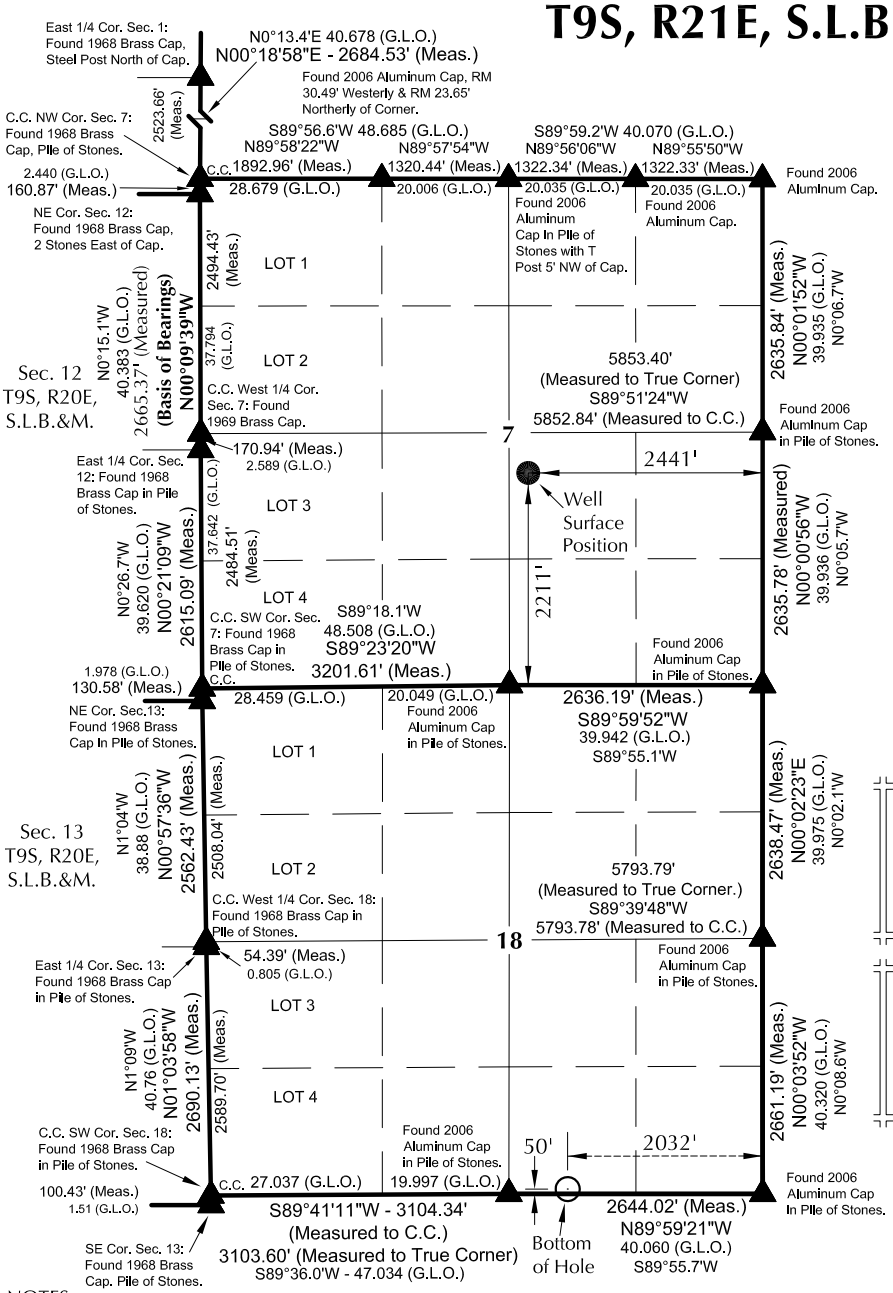
STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

1:16,807

RECEIVED: Sep. 25, 2013

T9S, R21E, S.L.B.&M.



WELL LOCATION:
NBU 921-7J

ELEV. UNGRADED GROUND = 4710.9'

NBU 921-7J (Surface Position)
NAD 83 LATITUDE = 40.049441° (40° 02' 57.987")
LONGITUDE = 109.593794° (109° 35' 37.658")
NAD 27 LATITUDE = 40.049476° (40° 02' 58.115")
LONGITUDE = 109.593103° (109° 35' 35.172")

NBU 921-7J (Bottom Hole)
NAD 83 LATITUDE = 40.028969° (40° 01' 44.289")
LONGITUDE = 109.592288° (109° 35' 32.238")
NAD 27 LATITUDE = 40.029005° (40° 01' 44.417")
LONGITUDE = 109.591598° (109° 35' 29.753")

NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S03°09'07"E 7471.37' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R KLAUGH STATE OF UTAH

8-19-13

PROFESSIONAL LAND SURVEYOR
REGISTRATION NO. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-7J

NBU 921-7J
WELL PLAT
50' FSL, 2032' FEL (Bottom Hole)
SW ¼ SE ¼ OF SECTION 18, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 2-13-12	SURVEYED BY: J.W.	SHEET NO: 1
DATE DRAWN: 2-13-12	DRAWN BY: T.J.R.	1 OF 12
SCALE: 1" = 2000'	Date Last Revised: 8-14-13 T.J.R.	

DRILLING AND GEOLOGICAL INFORMATION

PROSPECT/FIELD	Maverick	**COUNTY**	Uintah	**GROUND ELEVATION**	GR 4,711'
OPERATOR	ANADARKO	**STATE**	UT	**RIG HT. 19.0' KB**	KB ± 4,730'
LEASE & WELL NO.	NBU 921-7J	**FORM @ TD (HORIZONTAL HOLE)**	L. Green River		
FORM @ TD (PILOT HOLE)	n/a				
Initial Target Line	5168 @ 0' VS w/ 92				
	Section 7 T9S R21E		Section 18 T9S R21E		
LAT/LONG (NAD83)	40.049441 -109.593794	**BOTTOM HOLE LAT/LONG (NAD83)**	40.028970 -109.592340		
LAT/LONG (NAD27)	40.049476 -109.593103	**BOTTOM HOLE LAT/LONG (NAD27)**	40.029010 -109.591670		
AZIMUTH OF HORIZONTAL	179.830000	**STRIKE/DIP OBJECTIVE FORMATION**			
FORM @ TD (PILOT HOLE)	N/A	**FORM @ TD (HORIZONTAL HOLE)**	Green River Lower		
API NUMBER	430752514	**AFE NUMBER**	2073808		

WELLBORE

9 5/8" CASING DEPTH
MD: 3,128'
TVD: 3,128'

7" CEMENT TOP
MD: 0'
TVD: 0'

KOP
TVD/MD: 4,595'

LANDING AND 7" INTERMEDIATE DEPTH
MD: 5,513'
TVD: 5,166'

4-1/2" LINER TOP
MD: 5,313'
TVD: 5,137'

4-1/2" LINER DEPTH
MD: 12,383'
TVD: 4,924'

Based on 4,730' KB

GEOLOGICAL TOPS:

Formation	MD	TVD	Comments
Bird's Nest	1,930 '	1,949 '	
Mahogany	2,468 '	2,487 '	
Douglas Creek	3,523 '	3,542 '	
L. Green River	5,232 '	5,128 '	
L. Green River Target Line	5,473 '	5,187 '	
Target Center Line		5168 @ 0' VS w/ 92	
Target Window +/-		5 Foot Above or below TCL	
Proposed TD (Horizontal)	12,383 '	4,905 '	NA

LOGGING PROGRAM:

Interval	LWD & Mud Logging Requested	Open Hole Logging Program
Surf Csg -KOP	Gamma Ray	
KOP - LP	Gamma Ray + Mud Logging	
HZ Lateral	LWD Azi GR; RT; Azi RHOB + Mud Logging	XRMI(image)+Tcombo w/spectral GR

POTENTIAL DRILLING PROBLEMS:
Possible shale issues

DEVIATION:
Plan to build curve with 10 deg/100' constant DLS to land into the the horizontal target zone, and drill about 6870' of horizontal lateral.

MUD PROGRAM:

Mud Type	Interval	Corresponding Depths	Weight	Vis	WL	Remarks
WBM	Surface Hole	0 - 3128	8.4	26	NC	Mud additives are detailed in the POD drililng plan
WBM	Pilot Hole (If app)	3128 - N/A	8.5 - 9.0	26-40	NC	Mud additives are detailed in the POD drililng plan
WBM	To KOP	3128 - 4595	9.0 - 10.0	26-40	<10	Mud additives are detailed in the POD drililng plan
WBM	Curve	4595 - 5513	9.0 - 10.5	35 - 50	<10	Mud additives are detailed in the POD drililng plan
WBM	Lateral	5513 - 12383	9.5 - 11.0	35 - 50	<10	Mud additives are detailed in the POD drililng plan

CASING & CEMENT PROGRAM:

	Size	Wt (ppf)	Grade	Thread	Hole	Top	Bottom	Cement:	Ft	Sx	Density (ppg)	Yield (cf/sk)	GPS	Type
Surface Casing:	9.625"	36.0	J-55	LTC	12.25"	0'	3,128'	**Lead**	1,400 '	±420 sx	12.5	2.1	11.97	Type III
								Tail	1,728 '	±510 sx	14.3	1.46	7.18	Type III
Lead Cmt Additives	2.5% SMS, 0.25 lbs/sk Cello Flake, 0.08 lbs/sk Static free													
Tail Cmt Additives	2% Calcium Chloride, 0.25 lbs/sk Cello Flake, 0.08 lbs/sk Static free													
Intermediate Casing:	7.000"	26.0	HCP-110	DQX	8.75"	0'	5,513'	**Lead**	5,013 '	±670 sx	12.5	1.52	8.04	Premium Lite
								Tail	500 '	±90 sx	15.8	1.15	4.94	Class G
Lead Cmt Additives	3% Bentonite, 0.4% FL - 52, 0.25 lb/sk Cello Flake													
Tail Cmt Additives	20% S-8, 0.4% FL-52, 0.1% SMS													
Production Csg:	4.500"	11.6	HCP-110	DQX	6.125"	4,966'	12,385'							Uncemented/Perforated Liner

Lateral Length 6,883'

TOE / 4-½" LINER SETTING DEPTH:
MD: 12,383' **TVD:** 4,924'
LATERAL LENGTH
MD: 6,870'

PILOT HOLE:
MD: N/A
TVD: N/A

BOTTOM HOLE PRESSURE
Formation: Section 2,698 psi @ 4,905' or Gradient: 0.55 psi/ft
psi @ or Gradient: psi/ft

Prepared by: **Date:** 08/14/13 **Doc:** Well Draft Drilling Diagram.xls

RECEIVED: Aug. 19, 2013

PATHFINDER
A Schlumberger Company

Proposal

Anadarko

Rev 3

Anadarko Petroleum Corporation

WELL	FIELD	STRUCTURE
NBU 921-7J	UT, Uintah County	18-09S-21E (NBU 921-7J)

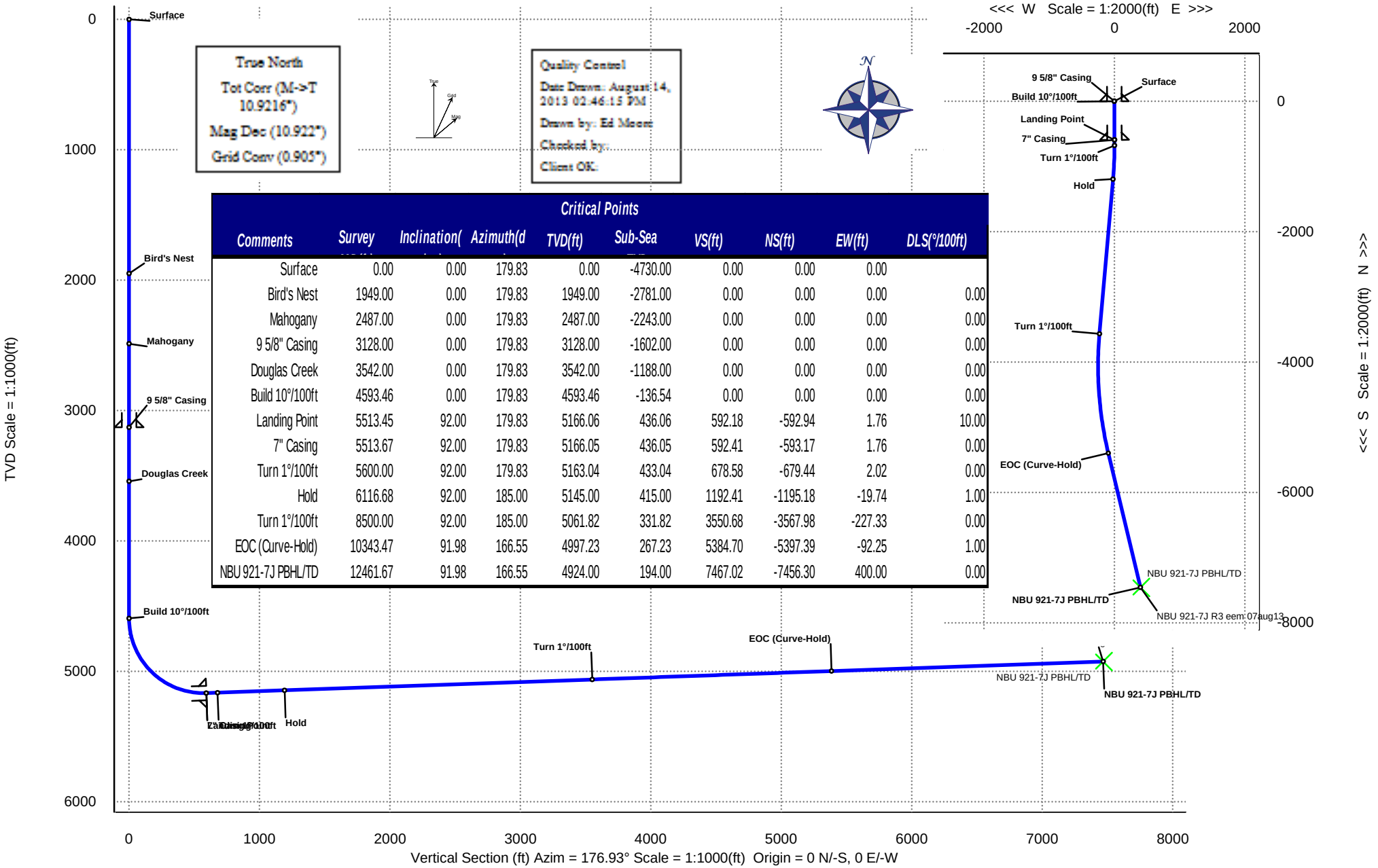
Magnetic Parameters						Surface Location				NAD83 Universal Transverse Mercator, Zone 12 North, US Feet				Miscellaneous			
Model:	BGGM 2013	Dip:	65.825°	Date:	August 20, 2013	Lat:	N 40 2 57.986	Northing:	14547844.54 ftUS	Grid Conv:	0.905°	Slot:	NBU 921-7J	TVD Ref:	KB(4730ft above MSL)
		Mag Dec:	10.922°	FS:	52051.3nT	Lon:	W 109 35 37.657	Easting:	2033948.81 ftUS	Scale Fact:	0.99977712	Plan:	NBU 921-7J R3	Srvy Date:	July 18, 2013

True North
Tot Corr (M->T 10.9216°)
Mag Dec (10.922°)
Grid Conv (0.905°)

Quality Control
Date Drawn: August 14, 2013 02:46:15 PM
Drawn by: Ed Moore
Checked by:
Client OK.

Critical Points

Comments	Survey	Inclination(	Azimuth(d	TVD(ft)	Sub-Sea	VS(ft)	NS(ft)	EW(ft)	DLS(°/100ft)
Surface	0.00	0.00	179.83	0.00	-4730.00	0.00	0.00	0.00	
Bird's Nest	1949.00	0.00	179.83	1949.00	-2781.00	0.00	0.00	0.00	0.00
Mahogany	2487.00	0.00	179.83	2487.00	-2243.00	0.00	0.00	0.00	0.00
9 5/8" Casing	3128.00	0.00	179.83	3128.00	-1602.00	0.00	0.00	0.00	0.00
Douglas Creek	3542.00	0.00	179.83	3542.00	-1188.00	0.00	0.00	0.00	0.00
Build 10°/100ft	4593.46	0.00	179.83	4593.46	-136.54	0.00	0.00	0.00	0.00
Landing Point	5513.45	92.00	179.83	5166.06	436.06	592.18	-592.94	1.76	10.00
7" Casing	5513.67	92.00	179.83	5166.05	436.05	592.41	-593.17	1.76	0.00
Turn 1°/100ft	5600.00	92.00	179.83	5163.04	433.04	678.58	-679.44	2.02	0.00
Hold	6116.68	92.00	185.00	5145.00	415.00	1192.41	-1195.18	-19.74	1.00
Turn 1°/100ft	8500.00	92.00	185.00	5061.82	331.82	3550.68	-3567.98	-227.33	0.00
EOC (Curve-Hold)	10343.47	91.98	166.55	4997.23	267.23	5384.70	-5397.39	-92.25	1.00
NBU 921-7J PBHL/TD	12461.67	91.98	166.55	4924.00	194.00	7467.02	-7456.30	400.00	0.00



PATHFINDER
A Schlumberger Company

Anadarko Petroleum Corporation

NBU 921-7J R3 eem 07aug13 Proposal Geodetic Report

(Non-Def Plan)

Report Date:	August 14, 2013 - 08:55 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Anadarko	**Vertical Section Azimuth:**	176.929 ° (True North)
Field:	UT, Uintah County Nad 27 Zone 12N 2013	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Anadarko 18-09S-21E (NBU 921-7J) / NBU 921-7J	**TVD Reference Datum:**	KB
Well:	NBU 921-7J	**TVD Reference Elevation:**	4730.000 ft above MSL
Borehole:	Original Hole	**Seabed / Ground Elevation:**	4711.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	10.922 °
Survey Name:	NBU 921-7J R3 eem 07aug13	**Total Gravity Field Strength:**	999.0462mgn (9.80665 Based)
Survey Date:	July 18, 2013	**Total Magnetic Field Strength:**	52051.290 nT
Tort / AHD / DDI / ERD Ratio:	115.602 ° / 7536.950 ft / 6.323 / 1.459	**Magnetic Dip Angle:**	65.825 °
Coordinate Reference System:	NAD83 Universal Transverse Mercator, Zone 12 North, US Feet	**Declination Date:**	August 20, 2013
Location Lat / Long:	N 40° 2' 57.98590", W 109° 35' 37.56710"	**Magnetic Declination Model:**	BGGM 2013
Location Grid N/E Y/X:	N 14547844.649 ftUS, E 2033955.803 ftUS	**North Reference:**	True North
CRS Grid Convergence Angle:	0.9049 °	**Grid Convergence Used:**	0.0000 °
Grid Scale Factor:	0.99977713	**Total Corr Mag North->True North:**	10.9216 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
Surface	0.00	0.00	179.83	0.00	0.00	0.00	0.00	N/A	14547844.65	2033955.80	N 40.04944	W 109.59377
	100.00	0.00	179.83	100.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	200.00	0.00	179.83	200.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	300.00	0.00	179.83	300.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	400.00	0.00	179.83	400.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	500.00	0.00	179.83	500.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	600.00	0.00	179.83	600.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	700.00	0.00	179.83	700.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	800.00	0.00	179.83	800.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	900.00	0.00	179.83	900.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1000.00	0.00	179.83	1000.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1100.00	0.00	179.83	1100.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1200.00	0.00	179.83	1200.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1300.00	0.00	179.83	1300.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1400.00	0.00	179.83	1400.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1500.00	0.00	179.83	1500.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1600.00	0.00	179.83	1600.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1700.00	0.00	179.83	1700.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1800.00	0.00	179.83	1800.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	1900.00	0.00	179.83	1900.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
Bird's Nest	*1949.00*	*0.00*	*179.83*	*1949.00*	*0.00*	*0.00*	*0.00*	*0.00*	*14547844.65*	*2033955.80*	*N 40.04944*	*W 109.59377*
	2000.00	0.00	179.83	2000.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2100.00	0.00	179.83	2100.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2200.00	0.00	179.83	2200.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2300.00	0.00	179.83	2300.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2400.00	0.00	179.83	2400.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
Mahogany	*2487.00*	*0.00*	*179.83*	*2487.00*	*0.00*	*0.00*	*0.00*	*0.00*	*14547844.65*	*2033955.80*	*N 40.04944*	*W 109.59377*
	2500.00	0.00	179.83	2500.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2600.00	0.00	179.83	2600.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2700.00	0.00	179.83	2700.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2800.00	0.00	179.83	2800.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	2900.00	0.00	179.83	2900.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3000.00	0.00	179.83	3000.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3100.00	0.00	179.83	3100.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
9 5/8" Casing	*3128.00*	*0.00*	*179.83*	*3128.00*	*0.00*	*0.00*	*0.00*	*0.00*	*14547844.65*	*2033955.80*	*N 40.04944*	*W 109.59377*
	3200.00	0.00	179.83	3200.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3300.00	0.00	179.83	3300.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3400.00	0.00	179.83	3400.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3500.00	0.00	179.83	3500.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
Douglas Creek	*3542.00*	*0.00*	*179.83*	*3542.00*	*0.00*	*0.00*	*0.00*	*0.00*	*14547844.65*	*2033955.80*	*N 40.04944*	*W 109.59377*
	3600.00	0.00	179.83	3600.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3700.00	0.00	179.83	3700.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3800.00	0.00	179.83	3800.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	3900.00	0.00	179.83	3900.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4000.00	0.00	179.83	4000.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4100.00	0.00	179.83	4100.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4200.00	0.00	179.83	4200.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4300.00	0.00	179.83	4300.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4400.00	0.00	179.83	4400.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4500.00	0.00	179.83	4500.00	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
Build 10°/100ft	4593.46	0.00	179.83	4593.46	0.00	0.00	0.00	0.00	14547844.65	2033955.80	N 40.04944	W 109.59377
	4600.00	0.65	179.83	4600.00	0.04	-0.04	0.00	10.00	14547844.61	2033955.80	N 40.04944	W 109.59377
	4700.00	10.65	179.83	4699.39	9.86	-9.88	0.03	10.00	14547834.78	2033955.99	N 40.04941	W 109.59377
	4800.00	20.65	179.83	4795.56	36.78	-36.83	0.11	10.00	14547807.84	2033956.49	N 40.04934	W 109.59377
	4900.00	30.65	179.83	4885.58	79.96	-80.06	0.24	10.00	14547764.62	2033957.30	N 40.04922	W 109.59377
	5000.00	40.65	179.83	4966.74	138.10	-138.28	0.41	10.00	14547706.42	2033958.40	N 40.04906	W 109.59377
	5100.00	50.65	179.83	5036.54	209.44	-209.70	0.62	10.00	14547635.03	2033959.74	N 40.04886	W 109.59377
	5200.00	60.65	179.83	5092.89	291.79	-292.16	0.87	10.00	14547552.60	2033961.28	N 40.04864	W 109.59377
	5300.00	70.66	179.83	5134.06	382.67	-383.16	1.14	10.00	14547461.65	2033962.99	N 40.04839	W 109.59376
	5400.00	80.66	179.83	5158.81	479.30	-479.91	1.42	10.00	14547364.93	2033964.80	N 40.04812	W 109.59376
	5500.00	90.66	179.83	5166.37	578.76	-579.50	1.72	10.00	14547265.38	2033966.67	N 40.04785	W 109.59376
Landing Point	5513.45	92.00	179.83	5166.06	592.18	-592.94	1.76	10.00	14547251.94	2033966.92	N 40.04781	W 109.59376
7" Casing	*5513.67*	*92.00*	*179.83*	*5166.05*	*592.41*	*-593.17*	*1.76*	*0.00*	*14547251.72*	*2033966.93*	*N 40.04781*	*W 109.59376*
Turn 1°/100ft	5600.00	92.00	179.83	5163.04	678.58	-679.44	2.02	0.00	14547165.48	2033968.55	N 40.04758	W 109.59376
	5700.00	92.00	180.83	5159.55	778.34	-779.38	1.44	1.00	14547065.57	2033969.55	N 40.04730	W 109.59376

RECEIVED: Aug. 19, 2013

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
	5800.00	92.00	181.83	5156.06	877.98	-879.29	-0.88	1.00	14546965.65	2033968.81	N 40.04703	W 109.59377
	5900.00	92.00	182.83	5152.56	977.47	-979.14	-4.95	1.00	14546865.77	2033966.32	N 40.04675	W 109.59379
	6000.00	92.00	183.83	5149.07	1076.79	-1078.91	-10.76	1.00	14546765.94	2033962.09	N 40.04648	W 109.59381
	6100.00	92.00	184.83	5145.58	1175.89	-1178.57	-18.31	1.00	14546666.21	2033956.11	N 40.04621	W 109.59383
Hold	6116.68	92.00	185.00	5145.00	1192.41	-1195.18	-19.74	1.00	14546649.58	2033954.95	N 40.04616	W 109.59384
	6200.00	92.00	185.00	5142.09	1274.85	-1278.13	-26.99	0.00	14546566.54	2033949.00	N 40.04593	W 109.59387
	6300.00	92.00	185.00	5138.60	1373.79	-1377.69	-35.70	0.00	14546466.88	2033941.87	N 40.04566	W 109.59390
	6400.00	92.00	185.00	5135.11	1472.74	-1477.24	-44.41	0.00	14546367.22	2033934.73	N 40.04539	W 109.59393
	6500.00	92.00	185.00	5131.62	1571.69	-1576.80	-53.12	0.00	14546267.56	2033927.60	N 40.04511	W 109.59396
	6600.00	92.00	185.00	5128.13	1670.64	-1676.36	-61.83	0.00	14546167.90	2033920.46	N 40.04484	W 109.59399
	6700.00	92.00	185.00	5124.64	1769.59	-1775.92	-70.54	0.00	14546068.24	2033913.33	N 40.04457	W 109.59402
	6800.00	92.00	185.00	5121.15	1868.54	-1875.48	-79.25	0.00	14545968.57	2033906.19	N 40.04429	W 109.59405
	6900.00	92.00	185.00	5117.66	1967.49	-1975.04	-87.96	0.00	14545868.91	2033899.06	N 40.04402	W 109.59408
	7000.00	92.00	185.00	5114.17	2066.44	-2074.60	-96.67	0.00	14545769.25	2033891.92	N 40.04375	W 109.59411
	7100.00	92.00	185.00	5110.68	2165.39	-2174.16	-105.38	0.00	14545669.59	2033884.79	N 40.04347	W 109.59415
	7200.00	92.00	185.00	5107.19	2264.34	-2273.71	-114.09	0.00	14545569.93	2033877.65	N 40.04320	W 109.59418
	7300.00	92.00	185.00	5103.70	2363.29	-2373.27	-122.80	0.00	14545470.27	2033870.52	N 40.04293	W 109.59421
	7400.00	92.00	185.00	5100.21	2462.24	-2472.83	-131.52	0.00	14545370.61	2033863.38	N 40.04265	W 109.59424
	7500.00	92.00	185.00	5096.72	2561.19	-2572.39	-140.23	0.00	14545270.94	2033856.24	N 40.04238	W 109.59427
	7600.00	92.00	185.00	5093.23	2660.13	-2671.95	-148.94	0.00	14545171.28	2033849.11	N 40.04211	W 109.59430
	7700.00	92.00	185.00	5089.74	2759.08	-2771.51	-157.65	0.00	14545071.62	2033841.97	N 40.04183	W 109.59433
	7800.00	92.00	185.00	5086.25	2858.03	-2871.07	-166.36	0.00	14544971.96	2033834.84	N 40.04156	W 109.59436
	7900.00	92.00	185.00	5082.76	2956.98	-2970.63	-175.07	0.00	14544872.30	2033827.70	N 40.04129	W 109.59439
	8000.00	92.00	185.00	5079.27	3055.93	-3070.18	-183.78	0.00	14544772.64	2033820.57	N 40.04101	W 109.59442
	8100.00	92.00	185.00	5075.78	3154.88	-3169.74	-192.49	0.00	14544672.97	2033813.43	N 40.04074	W 109.59446
	8200.00	92.00	185.00	5072.29	3253.83	-3269.30	-201.20	0.00	14544573.31	2033806.30	N 40.04047	W 109.59449
	8300.00	92.00	185.00	5068.80	3352.78	-3368.86	-209.91	0.00	14544473.65	2033799.16	N 40.04019	W 109.59452
	8400.00	92.00	185.00	5065.31	3451.73	-3468.42	-218.62	0.00	14544373.99	2033792.03	N 40.03992	W 109.59455
Turn 1°/100ft	8500.00	92.00	185.00	5061.82	3550.68	-3567.98	-227.33	0.00	14544274.33	2033784.89	N 40.03965	W 109.59458
	8600.00	92.00	184.00	5058.32	3649.74	-3667.61	-235.17	1.00	14544174.61	2033778.63	N 40.03937	W 109.59461
	8700.00	92.01	183.00	5054.82	3749.03	-3767.36	-241.27	1.00	14544074.80	2033774.11	N 40.03910	W 109.59463
	8800.00	92.01	182.00	5051.32	3848.49	-3867.20	-245.62	1.00	14543974.92	2033771.33	N 40.03882	W 109.59465
	8900.00	92.01	181.00	5047.81	3948.11	-3967.10	-248.24	1.00	14543875.01	2033770.29	N 40.03855	W 109.59466
	9000.00	92.02	180.00	5044.29	4047.85	-4067.04	-249.10	1.00	14543775.10	2033771.00	N 40.03828	W 109.59466
	9100.00	92.02	179.00	5040.77	4147.69	-4166.97	-248.23	1.00	14543675.22	2033773.46	N 40.03800	W 109.59466
	9200.00	92.02	178.00	5037.25	4247.59	-4266.87	-245.60	1.00	14543575.39	2033777.66	N 40.03773	W 109.59465
	9300.00	92.02	177.00	5033.73	4347.52	-4366.71	-241.24	1.00	14543475.65	2033783.60	N 40.03745	W 109.59463
	9400.00	92.02	175.99	5030.21	4447.46	-4466.46	-235.13	1.00	14543376.03	2033791.28	N 40.03718	W 109.59461
	9500.00	92.02	174.99	5026.69	4547.36	-4566.09	-227.27	1.00	14543276.56	2033800.71	N 40.03691	W 109.59458
	9600.00	92.01	173.99	5023.18	4647.21	-4665.57	-217.69	1.00	14543177.28	2033811.86	N 40.03663	W 109.59455
	9700.00	92.01	172.99	5019.67	4746.96	-4764.86	-206.36	1.00	14543078.20	2033824.75	N 40.03636	W 109.59451
	9800.00	92.01	171.99	5016.16	4846.60	-4863.94	-193.30	1.00	14542979.36	2033839.37	N 40.03609	W 109.59446
	9900.00	92.00	170.99	5012.66	4946.09	-4962.78	-178.52	1.00	14542880.79	2033855.71	N 40.03582	W 109.59441
	10000.00	92.00	169.99	5009.16	5045.40	-5061.34	-162.01	1.00	14542782.52	2033873.77	N 40.03555	W 109.59435
	10100.00	92.00	168.99	5005.68	5144.49	-5159.60	-143.78	1.00	14542684.58	2033893.55	N 40.03528	W 109.59428
	10200.00	91.99	167.99	5002.20	5243.35	-5257.53	-123.84	1.00	14542587.00	2033915.03	N 40.03501	W 109.59421
	10300.00	91.98	166.99	4998.73	5341.94	-5355.10	-102.19	1.00	14542489.81	2033938.21	N 40.03474	W 109.59413
EOC (Curve-Hold)	10343.47	91.98	166.55	4997.23	5384.70	-5397.39	-92.25	1.00	14542447.69	2033948.82	N 40.03462	W 109.59410
	10400.00	91.98	166.55	4995.27	5440.27	-5452.34	-79.11	0.00	14542392.97	2033962.81	N 40.03447	W 109.59405
	10500.00	91.98	166.55	4991.82	5538.58	-5549.54	-55.87	0.00	14542296.17	2033987.58	N 40.03421	W 109.59397
	10600.00	91.98	166.55	4988.36	5636.88	-5646.74	-32.63	0.00	14542199.37	2034012.35	N 40.03394	W 109.59389
	10700.00	91.98	166.55	4984.90	5735.19	-5743.94	-9.39	0.00	14542102.57	2034037.11	N 40.03367	W 109.59380
	10800.00	91.98	166.55	4981.44	5833.50	-5841.14	13.85	0.00	14542005.77	2034061.88	N 40.03341	W 109.59372
	10900.00	91.98	166.55	4977.99	5931.80	-5938.34	37.09	0.00	14541908.97	2034086.64	N 40.03314	W 109.59364
	11000.00	91.98	166.55	4974.53	6030.11	-6035.54	60.32	0.00	14541812.17	2034111.41	N 40.03287	W 109.59355
	11100.00	91.98	166.55	4971.07	6128.41	-6132.74	83.56	0.00	14541715.37	2034136.17	N 40.03261	W 109.59347
	11200.00	91.98	166.55	4967.62	6226.72	-6229.94	106.80	0.00	14541618.57	2034160.94	N 40.03234	W 109.59339
	11300.00	91.98	166.55	4964.16	6325.03	-6327.15	130.04	0.00	14541521.77	2034185.70	N 40.03207	W 109.59330
	11400.00	91.98	166.55	4960.70	6423.33	-6424.35	153.28	0.00	14541424.97	2034210.47	N 40.03181	W 109.59322
	11500.00	91.98	166.55	4957.25	6521.64	-6521.55	176.52	0.00	14541328.17	2034235.24	N 40.03154	W 109.59314
	11600.00	91.98	166.55	4953.79	6619.95	-6618.75	199.76	0.00	14541231.37	2034260.00	N 40.03127	W 109.59306
	11700.00	91.98	166.55	4950.33	6718.25	-6715.95	223.00	0.00	14541134.57	2034284.77	N 40.03100	W 109.59297
	11800.00	91.98	166.55	4946.87	6816.56	-6813.15	246.24	0.00	14541037.77	2034309.53	N 40.03074	W 109.59289
	11900.00	91.98	166.55	4943.42	6914.86	-6910.35	269.47	0.00	14540940.97	2034334.30	N 40.03047	W 109.59281
	12000.00	91.98	166.55	4939.96	7013.17	-7007.55	292.71	0.00	14540844.17	2034359.06	N 40.03020	W 109.59272
	12100.00	91.98	166.55	4936.50	7111.48	-7104.75	315.95	0.00	14540747.37	2034383.83	N 40.02994	W 109.59264
	12200.00	91.98	166.55	4933.05	7209.78	-7201.95	339.19	0.00	14540650.57	2034408.59	N 40.02967	W 109.59256
	12300.00	91.98	166.55	4929.59	7308.09	-7299.15	362.43	0.00	14540553.77	2034433.36	N 40.02940	W 109.59247
	12400.00	91.98	166.55	4926.13	7406.39	-7396.35	385.67	0.00	14540456.97	2034458.13	N 40.02914	W 109.59239
NBU 921-7J PBHL/TD	12461.67	91.98	166.55	4924.00	7467.02	-7456.30	400.00	0.00	14540397.27	2034473.40	N 40.02897	W 109.59234

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	19.000		1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Hole / NBU 921-7J R3 eem 07aug13
	19.000	12461.669		1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / NBU 921-7J R3 eem 07aug13

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/5/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled to 11,705 ft. in August 2013.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 02, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 9/5/2013

RECEIVED: Sep. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/4/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well was completed, finishing well completion report. Well TD at 12,444 ft.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 07, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 10/4/2013

RECEIVED: Oct. 04, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/29/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 9/29/2013. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 07, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 10/4/2013

RECEIVED: Oct. 04, 2013

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/3/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: CHANGE LINER

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

KMG OIL & GAS ONSHORE LP, is requesting to remove the original liner installed in this well, and install and cement new liner per the attached procedures. Note verbal approval has already been given to remove the liner.

Accepted by the Utah Division of Oil, Gas and Mining

Date: December 04, 2013

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Doreen Green	435 781-9758	Regulatory Analyst II
SIGNATURE N/A		**DATE** 12/2/2013

RECEIVED: Dec. 02, 2013

NBU 921-7J
Liner Removal/Install Procedure

Uteland Butte Horizontal

AFE #: XXXXXX.XXX

November 26, 2013

Prepared by: Brad Laney
O: 435-781-7031 / C: 435-828-5469
Brad.Laney@anadarko.com

RECEIVED: Dec. 02, 2013

General Information

Well History

New drill horizontal in 9/13, ~4,902' TVD, 6,920' lateral length with slotted liner, perforated with pre-drilled ½" holes, 1 hole per 2' on 60 degree phasing, beginning 2' from ends of casing. Original completion utilized an acid wash with ~2400 bbls of acid.

Objective

Remove slotted liner (~3500' of 7500' of liner), install and cement new liner, and acid frac.

Location

Surface Hole Location NAD 83 Latitude = 40.049441, Long = -109.593794

Well Information

Name	NBU 921-7J
API #	4304752514
Field	GNB
Surface Location	2,211' FSL & 2,441' FEL NW SE Sec 7 T9S R21E Uintah Co, UT

Elevations & Depths

GL	4,710'	KB	4,729' (29')
KOP	4,579' MD; 4,578' TVD	HEEL	5489' MD; 5,166' TVD (lowest TVD)
TD	12,444' MD, 4,902' TVD	PBTD	12,432' MD (float collar)

Casing (see attached schematic for details)

Surface:	9-5/8" 36# J-55 LTC @ 3157' TOC: Surface (Assumed, returns to surface)
Intermediate:	7" 26# HCP-110 DQX @ 5,524' TOC: 1910'
Slotted Production Liner:	4-1/2" 13.5# HCP-110 @ 5,356-8,785' MD 4-1/2" HCP-110 Pup Joint @ 8,785-8,789' MD 4-1/2" 11.6# HCP-110 LTC @ 8,789-12,431' MD

RECEIVED: Dec. 02, 2013

Wellhead: 11” 5K x 9-5/8” annulus

Tubing Head: 11” 5K x 7-1/16” 5K

TUBULAR PROPERTIES:

	Drift inches	Collapse psi	Burst Psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375” 4.7# L-80 tbg.	1.901	11780	11200	0.1624	0.02173	0.00387
2.875” 10.4# S135 DP	2.03125	29716		0.19	0.02540	0.00452
4.5” 11.6# HCP110	3.875	7560	10690	0.6528	0.0872	0.0155
4.5” 13.5# HCP110	3.795	10670	12410	0.6269	0.0838	0.0149
7” 26# HCP110 csg	6.151	7800	9950	1.6070	0.2148	0.0382
2.375” X 4.5” 11.6 annulus				0.4227	0.0565	0.0101
2.375” X 4.5” 13.5 annulus				0.3968	0.0530	0.0094
2.375” X 7” annulus				1.3769	0.1841	0.0328
2.875” X 7” annulus				1.2698	0.1697	0.0302

Contacts List

Steve Wall:	Anadarko	435-823-7667
Jim Slaugh:	Slaugh Fishing	435 828-7358
Doug Dunn:	Knight Oil Tools	435 828-8700
Darrin Bailey:	Baker Hughes Pumping	435 790-0169
Tracy Neilson:	Weatherford	435-828-7794
Jeff Melancon	Halliburton	435-789-2550
Rex Mann	Well Tech Tractors	303-963-6637
Clay Sheffer	Weatherford (centralizers)	435-828-6227

RECEIVED: Dec. 02, 2013

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1. MIRU. Unland pump and flush tubing with hot water.
2. LD rods and pump.
3. Control well with water, NDWH, NUBOPE.
4. Unland 2 7/8" tubing anchor and TOOH.
5. PU mechanical cutter and TIH to cut 4.5" 13.5# casing 3-5' below liner hanger. Entire liner is slotted with holes as follows: 1 hole per 2 ft 60 degree phasing starting 2 feet from ends. Therefore, may need to make cut at next collar so ~40' below liner hanger.
6. TOOH and PU washover shoe. TIH
7. Wash over the liner hanger. TOOH
8. PU overshot and TIH to retrieve liner hanger and casing.
9. If successful, PU 2 7/8" AOH DP, jars, collars, and overshot. If unsuccessful, make 2nd attempt.
10. Work overshot over casing and attempt to remove entire 4.5" slotted liner (~7100'). Max pull on rig 250,000#. If successful, TOOH and LD liner.
11. If no movement, release tools, TOOH and PU mechanical cutter. TIH and cut at ~8789'. Exact depth will be decided by team. Note: 2 3/8" tubing will be needed for this step.
12. TOOH LD cutter, TIH with fishing tools and work overshot onto liner. If successful, TOOH and LD liner.
13. If unsuccessful, rig up casing jacks and attempt to move liner.
14. Once good movement is established, rig down casing jacks, and pull remainder of liner with rig.
15. If casing jacks are unsuccessful, release overshot, TOOH, pick up mechanical cutter, and TIH to cut ~2000' of liner then repeat steps for removal.
16. After liner is removed, PU 6.125" Hughes QD406FHX PDC bit with appropriate watermelon mills placed near bit and trip in hole to make a conditioning run. Circulate hole with water or drilling mud as needed to condition well bore for caliper log.
17. TOOH and RU Halliburton Logging 6 arm caliper with WellTech tractor to log ~1000' of hole from 7" casing shoe. TOOH with logging tools and RD wireline.
18. RU casing crew. PU float equipment with wet shoe sub and start running 4.5" 11.6# I-80 LTC casing. After running correct casing length PU liner hanger and finish running liner in hole with 2.875" DP and drill collars as needed. Note: Float liner in hole and utilize special casing centralizers on each joint.
19. Land hanger as per Weatherford running procedure.
20. Cement liner in place as per Baker Hughes recommendations. Slurry volume will be based off the 1000' caliper log information. General cement properties will be as follows: 14.4 ppg 50/50 Poz with a yield of 1.25 cuft/sx.
21. Set elements on liner hanger as per Weatherford procedure.
22. Release drill pipe from liner, circulate out cement.
23. TOOH and LDDP and collars.

RECEIVED: Dec. 02, 2013

24. TIH with tubing and drill out cement and prep PBR for frac string.
25. LD 2 7/8” tubing. PU frac string and RIH to liner hanger.
26. Land frac string in PBR. RU wireline and run wireline retrievable bridge plug.
27. Pressure test 4.5” casing to expected frac pressures. RIH with wireline and retrieve BP.
28. ND BOPE, NU frac valve, RDMO.

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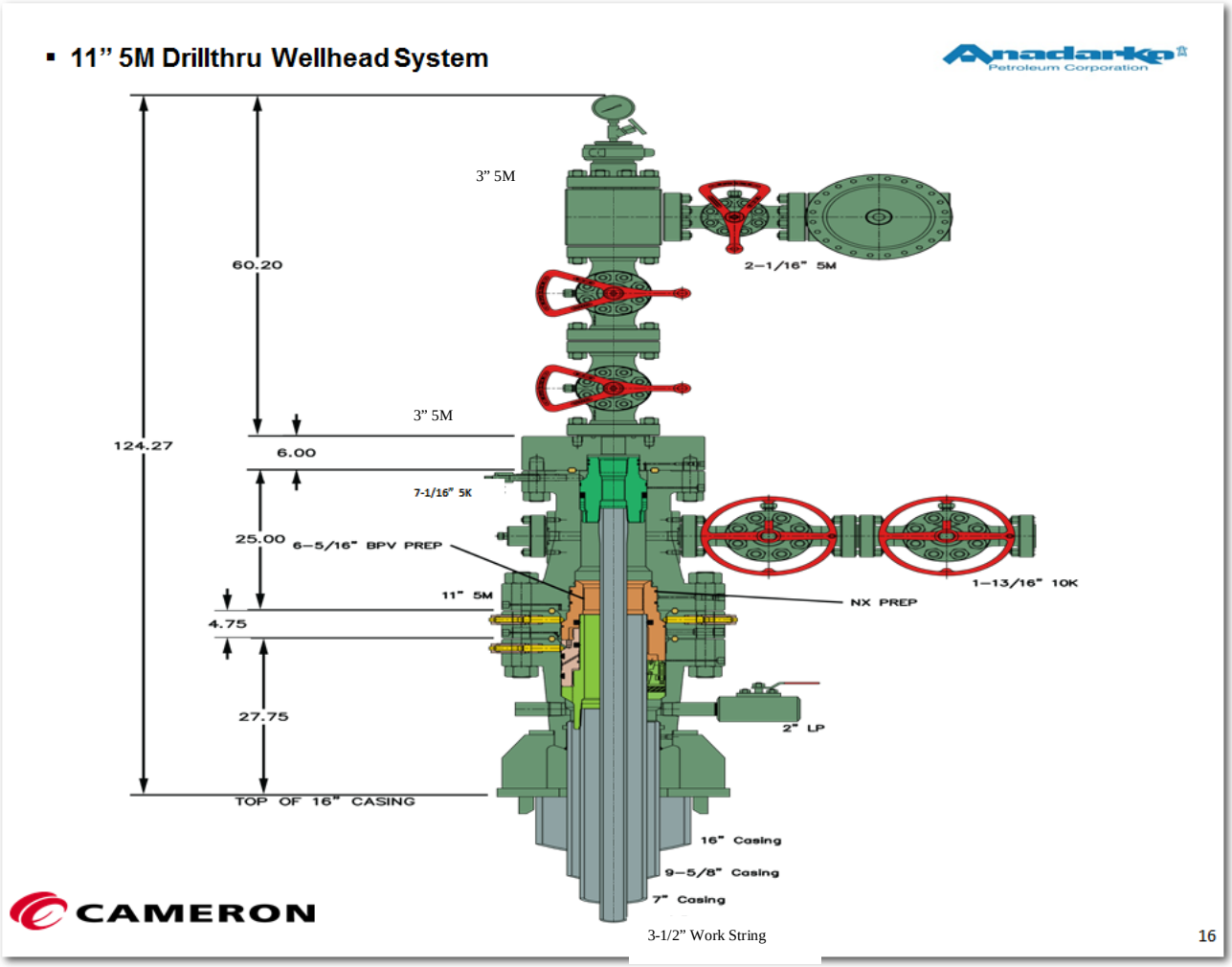
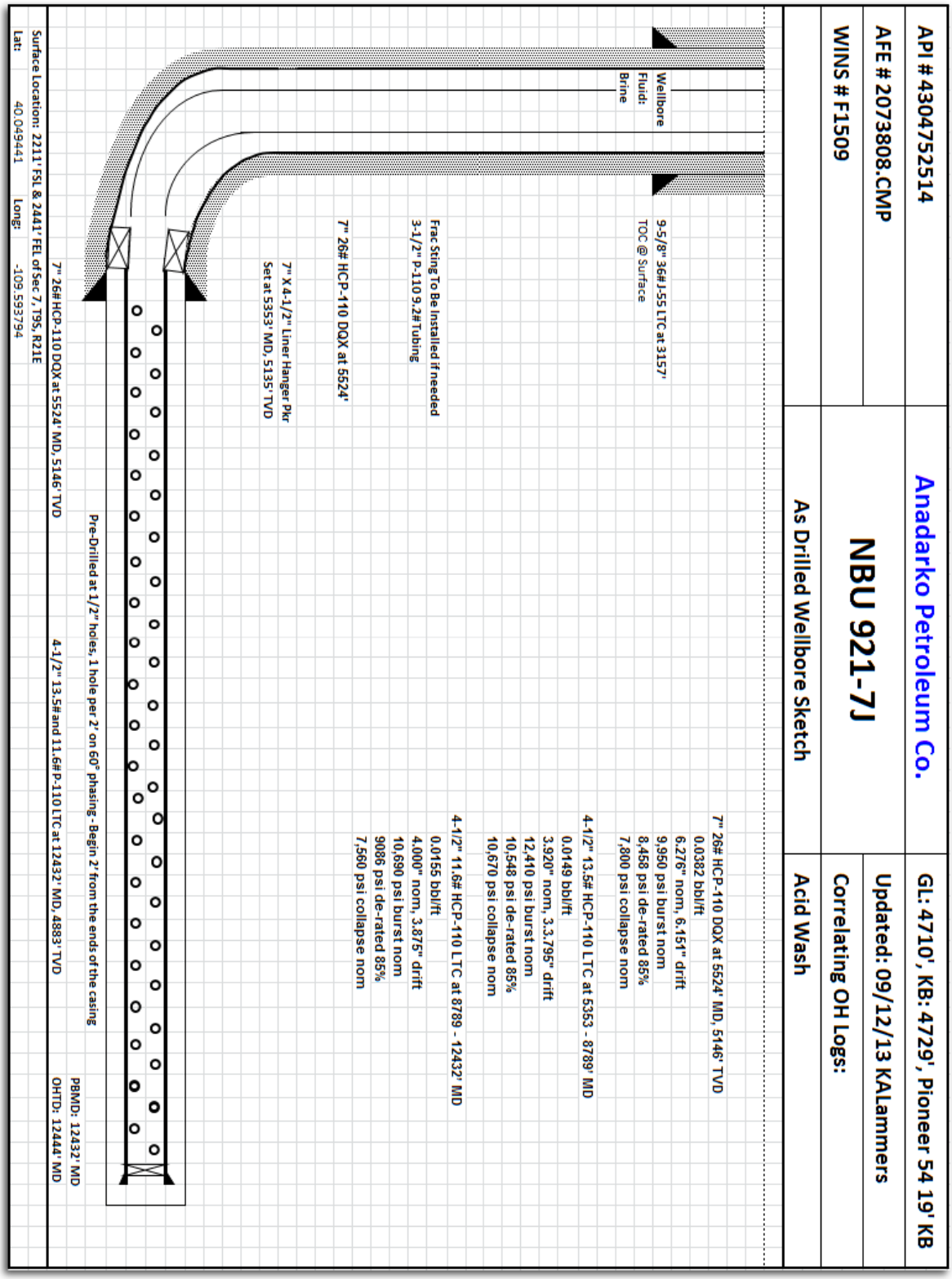
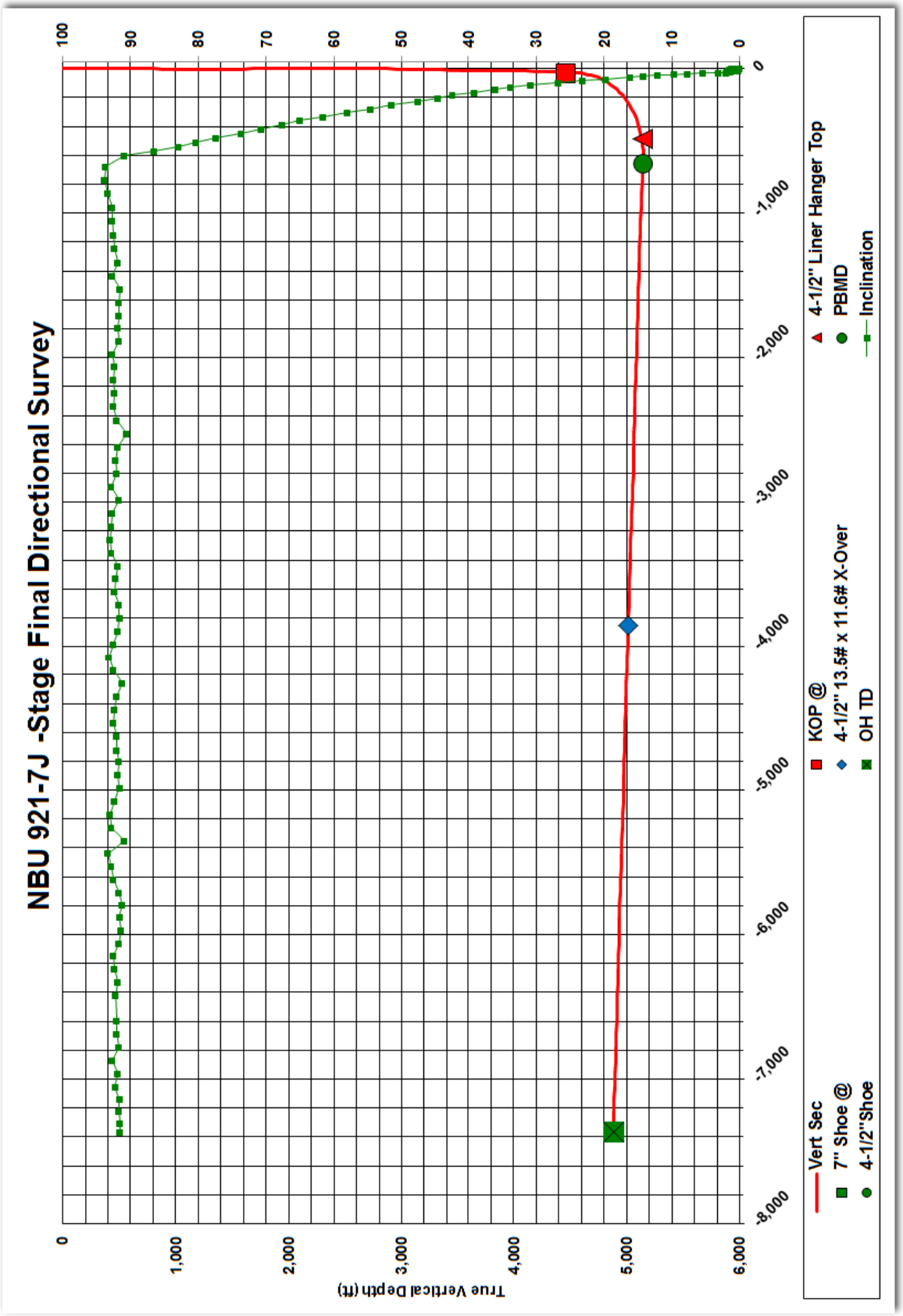
Wellhead Diagram (Will frac down wellhead)



RECEIVED: Dec. 02, 2013

Wellbore Diagrams





RECEIVED: Dec. 02, 2013

Sundry Number: 45949 API Well Number: 43047525140000

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UTU 0575-B

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Ute In

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-7J

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047525140000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6514

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/30/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	✓ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

KERR-MCGEE OIL & GAS ONSHORE LP is requesting to recomplete the NBU 921-7J in the Uteland Butte zone per the attached procedures.

Accepted by the Utah Division of Oil, Gas and Mining

Date: December 16, 2013

By: Dark K Dunt

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Doreen Green	435 781-9758	Regulatory Analyst II
SIGNATURE		**DATE**
N/A		12/16/2013

RECEIVED: Dec. 16, 2013

NBU 921-7J
Recompletion Procedure

Uteland Butte Horizontal

AFE #: XXXX.CMP
WINS #: XXXX

DRAFT

December 3, 2013

Prepared by: Kevin Lammers
Rockies Completions Engineer
O: 720-929-6109 / C: 713-829-7143
Kevin.Lammers@Anadarko.com

RECEIVED: Dec. 16, 2013

Table of Contents

1.0 General Information
2.0 Safety Procedures
3.0 Frac Tank Prep, CBL, Frac Stack & Casing Pressure Test
4.0 Fracture Stimulate Stages 1-18
5.0 Drill Out Frac Plugs
6.0 Frac Stack Diagram
7.0 Wellbore Diagram & Deviation Survey Information
8.0 Pump Schedule
9.0 Perforation Schedule

1.0 General Information

Well History

New drill horizontal on 9/13, ~4,902' TVD, 6,920' lateral length with slotted liner, perforated with pre-drilled ½" holes, 1 hole per 2' on 60 degree phasing, beginning 2' from ends of casing. Original completion utilized an acid wash with ~2400 bbls of acid. Liner will be pulled and ~3600' liner will be cemented and set in place.

Objective

Prepare 25,000 bbl of 2% KCl (design=21,000 bbl) plus excess fresh for lines, bottoms and wireline operations. Set frac stack; run CBL, pressure test casing and frac stack. Frac 18 stages with plug and perf method. MIRU completion unit and drill out plugs. Turn over to production.

Location

Surface Hole Location NAD 83 Latitude = 40.049441, Long = -109.593794

Well Information

RECEIVED: Dec. 16, 2013

Name	NBU 921-7J
API #	4304752514
Field	GNB
Surface Location	2,211’ FSL & 2,441’ FEL NW SE Sec 7 T9S R21E Uintah Co, UT

Elevations & Depths

GL	4,710’	KB	4,729’ (29’)
KOP	4,579’ MD; 4,578’ TVD	HEEL	5489’ MD; 5,166’ TVD (lowest TVD)
TD	12,444’ MD, 4,902’ TVD	PBTD	12,432’ MD (float collar)

Casing (see attached schematic for details in Sect 7.0)

Surface:	9-5/8” 36# J-55 LTC @ 3157’ TOC: Surface (Assumed, returns to surface)
Intermediate:	7” 26# HCP-110 DQX @ 5,524’ TOC: 1910’
Production Liner:	4-1/2” 11.6# I-80 @ ~5,350-8,950’ MD
Wellhead:	11” 5K x 9-5/8” annulus
Tubing Head:	11” 5K x 7-1/16” **10K**

RECEIVED: Dec. 16, 2013

Supplies Checklist

Frac Tanks: As needed for flowback + frac requirements (~900,000 gallons water)

Tanks as needed to contain 180,000 gallons of 15% HCl

Wellbore Prep: Bleach for pits and tanks

Water Manifold and Transfer Pumps

Stimulation: 7-1/16" 10K flange to threaded connection

Wireline + guns for 18 stages of plug and perf operation

18 4-1/2" 7K frac plugs

Various frac fluids and chemicals (below)

Job Fluids Summary ***NBU 921-7J***

Gelled 15% HCL

Volume	Corrosion Inhibitor	Iron Control	Surfactant	Gelling Agent
180000 (Gal)	HAI-404M	Fe-1A	Losurf-300D	SGA-III
Totals	360 (Gal)	1800 (Gal)	180 (Gal)	2700 (Gal)

FR-66 Water

Volume	Friction Reducer	Surfactant	Scale Control Additive	Base Fluid
263880 (Gal)	FR-66	Losurf-300D	Scalechek - LP-55	4% KCL Water*
Totals	131.94 (Gal)	263.88 (Gal)	39.58 (Gal)	0 (Gal)

20# Delta Frac 200

Volume	Crosslinker	Surfactant	Breaker	Scale Control Additive	Buffer	Base Fluid
450000 (Gal)	CL-31	Losurf-300D	Optiflo-II	Scalechek - LP-55	BA-40L	4% KCL Water*
Totals	112.5 (Gal)	450 (Gal)	450 (lbm)	67.5 (Gal)	225 (Gal)	450000 (Gal)

17# Water Frac G

Volume	Base Fluid	Breaker
180000 (Gal)	4% KCL Water*	Optiflo-II
Totals	180000 (Gal)	180 (lbm)

JOB TOTALS

Volume (Gal)	Corrosion Inhibitor (Gal)	Iron Control (Gal)	Surfactant (Gal)	Gelling Agent (Gal)	Friction Reducer (Gal)
	HAI-404M	Fe-1A	Losurf-300D	SGA-III	FR-66
	360	1800	893.88	2700	131.94
	Scale Control Additive (Gal)	Base Fluid (Gal)	Crosslinker (Gal)	Breaker (lbm)	Buffer (Gal)
	Scalechek - LP-55	4% KCL Water*	CL-31	Optiflo-II	BA-40L
	107.08	630000	112.5	630	225

Proppant

	Designed Qty	Requested
Common White-20/40	720000 (lbm)	720000 (lbm)

Customer Supplied Items *

	Designed Qty	Tank Bottom	Requested w/ Tank Bottom
4% KCL Water	893880 Gal	0 Gal	893880 Gal

RECEIVED: Dec. 16, 2013

2.0 IMPORTANT: Safety is the top priority at Anadarko Petroleum. Tailgate safety meetings are to be held at the start of each workday and prior to deviating from the prescribed procedure or any established standards. The scope, work plan, and potential hazards shall be discussed by all personnel on location.

3.0 Frac Tank Prep, CBL, Frac Stack & Casing Pressure Test

3.1 Hold Safety Meeting – review job requirements, check all equipment, perform job safety analysis (JSA) and ensure proper PPE is used during the duration of the job. Designate a smoking area off location at least 100' from any potential hydrocarbons.

3.2 With test pump unit, pressure test casing and liner to 7000 psi for 30 minutes, if casing pressure test fails, contact Denver engineers.

3.3 Set 500-1000 bbl horizontal frac tanks:

- As necessary for frac H2O, filled with fresh H2O + 2%KCl; due to spacing limitations on location, these will need to be refilled during the job, there will not be enough space to place enough tanks for 900,000 gallons
- ~10 500 bbl tanks to hold 15% HCl

3.4 Set up manifold and transfer pumps.

3.5 MIRU frac stack, torq unit, and pressure test unit. Stack up and torque test to frac stack to vendor specifications.

4.0 Fracture Stimulate Stages 1-18

4.1 Hold Safety Meeting – review job requirements, check all equipment, perform job safety analysis (JSA) and ensure proper PPE used during the duration of the job.

4.2 Hot oilers will heat frac tanks. Insure frac water is 65-70 F at time of pumping.

4.3 MIRU Halliburton frac. Lay lines sufficient to pump 60BPM. Top connection will be 7-1/16" 10K flange for W/L operations.

4.5 Manifold all flowback lines through dual choke manifold and open top tanks. Run separate line from inline pop offs directly to open top tank.

4.6 Max treating pressure will be 7,000psi; test fluid lines to 8,000psi. Set in-line pop-off at 6,800 psi; stagger pump trips at 6,500psi. Leave surface casing open, monitor for release during treatment and shut down if one is observed. Pressure test must not fall not lose more than 10% over 15 minutes.

4.8 Frac according to attached pump schedule, see detailed listing for perf and plug depths.

NOTE: All plug and perforation depths assume 3600' of liner will be set ending at 8,950'. If liner is set at different depth perf depths and number of stages may change.

4.9 RIH into the vertical with 3-1/8" gun and 19 gm, 0.40" hole charges. When lateral is reached, began pumping guns at 3-12 BPM to depth of 8908'.

4.10 Perf the following with 3-1/8" gun, 19 gm, 0.40"hole:

Zone	From	To	spf	# of shots
UTELAND BUTTE	8788	8790	4	8

UTELAND BUTTE	8828	8830	4	8
UTELAND BUTTE	8868	8870	4	8
UTELAND BUTTE	8908	8910	4	8

Breakdown perfs and establish injection rate. Fracture as outlined in Stage 1 on attached listing. Under-displace to bottom perf with scale inhibitor & biocide in flush.

4.11 RIH into the vertical with 3-1/8” gun and 19 gm, 0.40” hole charges and 4-1/2” 7K frac plug. When lateral is reached, began pumping guns at 3-12 BPM to depth of 8750’ and frac plug.

4.12 Perf the following with 3-1/8" gun, 19 gm, 0.40"hole:

Zone	From	To	spf	# of shots
UTELAND BUTTE	8588	8590	4	8
UTELAND BUTTE	8628	8630	4	8
UTELAND BUTTE	8668	8670	4	8
UTELAND BUTTE	8708	8710	4	8

Drop ball to set plug. Pump 12 BPM until ball seats. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to bottom perf with scale inhibitor & biocide in flush.

4.13 Repeat step 4.11 through 4.12, moving up hole as needed using attached schedules for perforation depths and pump volumes.

4.14 Set 4 ½” 7K CBP as kill plug 50’ above last stages perforation.

4.16 Shut-in well and RDMO Halliburton. Leave well shut-in 12-24 hr to allow acid to spend on formation.

5.0 Drill Out Stage Plugs

5.1 Hold Safety Meeting – review job requirements, check all equipment, perform job safety analysis (JSA) and ensure proper PPE.

5.2 MIRU pulling unit. ND frac valves and NU BOP. PU 3 7/8” mill, pump open bit sub, and 2 3/8” tbg and RIH. Tag kill plug and establish circulation.

5.3 RIH and cleanout wellbore to PBTD. If PBTD cannot be reach due to slow RIH speed, call Completion Engineer to discuss. Circulate 2 annular volumes. Continue to circulate until returns come back clean.

5.4 PU and land EOT 30’ above liner top. ND BOP and NUWH. Drop ball and pump open POBS. Turn well over to flowback crew.

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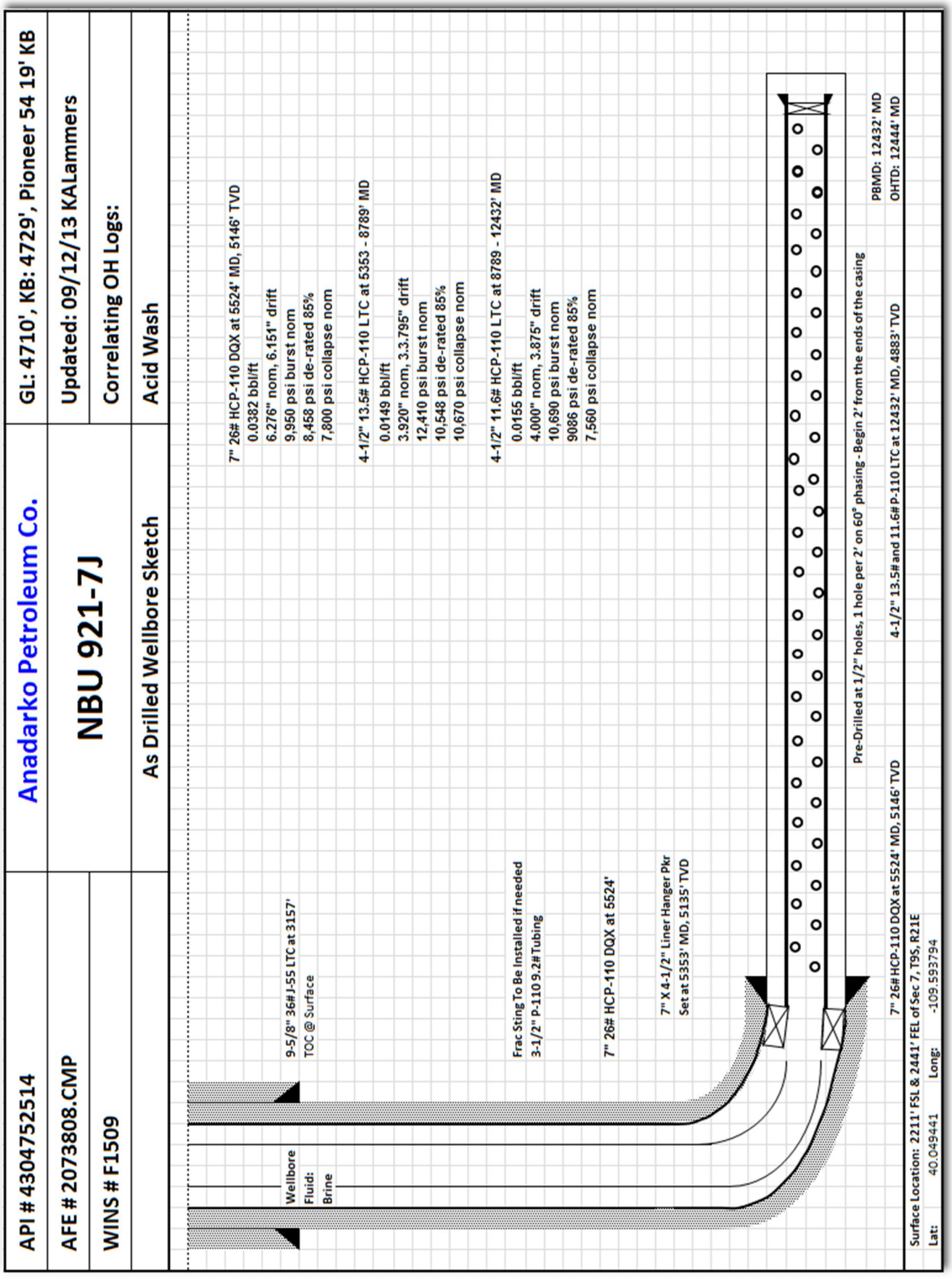
6.0 Wellbore Diagram and Deviation Survey Information



MD	TVD	INC	AZI
0.00	0.00	0.00	0.00
10.00	10.00	0.00	0.00
240.00	240.00	0.42	77.56
330.00	329.99	0.79	324.66
422.00	421.97	1.67	296.53
517.00	516.89	2.99	276.93
612.00	611.70	4.31	276.32
707.00	706.39	4.92	278.74
803.00	802.00	5.39	273.34
897.00	895.60	5.18	265.41
990.00	988.29	4.22	252.94
1084.00	1082.09	3.32	235.99
1178.00	1176.00	1.68	219.33
1273.00	1270.98	0.79	167.07
1367.00	1364.97	1.06	95.88
1461.00	1458.95	1.14	55.19
1557.00	1554.94	0.97	44.02
1650.00	1647.93	0.62	33.21
1746.00	1743.92	0.70	38.22
1840.00	1837.92	0.70	77.16
1933.00	1930.90	1.41	101.59
2027.00	2024.88	1.20	90.01
2120.00	2117.87	0.10	322.46
2211.00	2208.87	0.35	251.71
2303.00	2300.87	0.44	183.68
2397.00	2394.86	0.57	173.90
2484.00	2481.86	0.79	182.19
2581.00	2578.85	0.77	175.02
2671.00	2668.84	1.05	171.96
2768.00	2765.82	0.81	164.61
2862.00	2859.81	0.94	167.34
2957.00	2954.80	1.19	208.15
3052.00	3049.78	1.20	193.45
3147.00	3144.76	0.71	180.97
3241.00	3238.76	0.79	191.06
3336.00	3333.75	0.71	247.39
3431.00	3428.74	0.86	222.24
3525.00	3522.73	1.01	195.97
3620.00	3617.72	0.44	235.95
3715.00	3712.72	0.71	216.93
3810.00	3807.71	0.35	252.23

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3905.00	3902.71	0.56	208.25
4000.00	3997.70	0.90	189.92
4095.00	4092.69	0.55	190.45
4190.00	4187.69	0.67	66.54
4283.00	4280.65	3.04	158.55
4317.00	4314.52	6.67	176.12
4348.00	4345.18	10.22	182.59
4380.00	4376.50	13.44	184.34
4412.00	4407.40	16.54	184.16
4443.00	4436.91	19.09	184.22
4475.00	4466.89	21.82	184.32
4506.00	4495.37	24.74	183.00
4538.00	4524.08	27.62	180.75
4570.00	4552.02	30.72	180.18
4602.00	4579.08	33.80	180.51
4633.00	4604.37	36.82	180.78
4665.00	4629.58	39.23	182.10
4697.00	4653.90	41.80	183.15
4728.00	4676.44	44.89	183.04
4760.00	4698.59	47.54	182.77
4792.00	4719.68	49.97	181.94
4824.00	4739.63	52.89	181.22
4855.00	4757.72	55.72	181.70
4887.00	4774.95	59.11	181.75
4919.00	4790.32	63.47	181.52
4950.00	4803.33	66.89	181.16
4982.00	4814.77	71.19	180.68
5013.00	4824.05	73.96	180.43
5045.00	4831.93	77.53	180.15
5076.00	4837.62	81.33	179.67
5108.00	4841.42	85.02	178.81
5226.00	4843.85	92.62	180.80
5286.00	4841.54	91.78	179.91
5378.00	4838.28	92.29	179.73
5470.00	4833.41	93.77	178.92
5561.00	4827.25	94.00	179.37
5653.00	4822.23	92.25	180.79
5745.00	4818.27	92.69	180.32
5836.00	4814.63	91.89	180.33
5928.00	4811.52	91.99	181.26
6020.00	4808.55	91.71	181.45
6112.00	4805.38	92.24	181.83
6204.00	4802.61	91.21	180.91
6296.00	4801.69	89.93	180.90

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6388.00	4801.27	90.60	180.61
6480.00	4801.81	88.72	180.07
6572.00	4803.08	89.70	179.65
6664.00	4802.97	90.44	179.26
6756.00	4800.25	92.95	180.78
6847.00	4797.56	90.44	181.58
6939.00	4794.64	93.19	182.13
7031.00	4790.08	92.49	183.59
7123.00	4787.06	91.28	183.84
7215.00	4785.46	90.71	183.26
7325.00	4782.65	92.22	180.69
7385.00	4780.32	92.22	179.91
7477.00	4775.95	93.23	179.89
7568.00	4770.74	93.33	179.67
7659.00	4766.82	91.61	179.43
7751.00	4764.69	91.04	183.64
7843.00	4763.56	90.37	185.26
7935.00	4761.11	92.68	185.43
8028.00	4757.97	91.19	184.64
8123.00	4755.17	92.19	183.98
8218.00	4751.90	91.75	179.52
8313.00	4749.00	91.75	179.90
8408.00	4746.71	91.01	179.65
8503.00	4744.18	92.05	178.54
8598.00	4740.42	92.48	178.25
8693.00	4737.20	91.41	177.31
8788.00	4734.13	92.29	176.98
8883.00	4731.09	91.38	176.15
8977.00	4730.65	89.16	178.43
9073.00	4731.29	90.07	178.86
9168.00	4731.37	89.83	179.25
9263.00	4729.32	92.65	178.29
9294.00	4727.69	93.39	178.58
9325.00	4725.78	93.65	178.93
9357.00	4723.72	93.74	178.93
9403.00	4720.72	93.74	178.93

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7.0 Pump Schedule

Stages 1 - 5

Interval	Stage	Fluid description	Volume (gal)	Proppant	Prop Con	Proppant Total (lb)	Rate BPM	Stage Time min	Cum Time min
1	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,906						
2	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,775						
3	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,645						
4	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,515						
5	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						

Stages 6 – 10

Interval	Stage	Fluid description	Volume (gal)	Proppant	Prop Con	Proppant Total (lb)	Rate BPM	Stage Time min	Cum Time min
6	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
7	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
8	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
9	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
10	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						

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Stages 11 – 15

Interval	Stage	Fluid description	Volume (gal)	Proppant	Prop Con	Proppant Total (lb)	Rate BPM	Stage Time min	Cum Time min
11	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
12	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
13	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
14	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
15	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						

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Stages 16 – 18

Interval	Stage	Fluid description	Volume (gal)	Proppant	Prop Con	Proppant Total (lb)	Rate BPM	Stage Time min	Cum Time min
16	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
17	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						
18	1	Slickwater	5,000		0	0	60	0:01:59	0:01:59
	2	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:03:58
	3	17# Linear Gel	5,000		0	0	60	0:01:59	0:05:57
	4	Gelled 15% HCl	5,000		0	0	60	0:01:59	0:07:56
	5	17# Linear Gel	5,000		0	0	60	0:01:59	0:09:55
	6	20# Cross-link	3,000		0	0	60	0:01:11	0:11:07
	7	20# Cross-link	7,500	20/40 Ottawa	1	7,500	60	0:02:59	0:14:05
	8	20# Cross-link	5,500	20/40 Ottawa	2	11,000	60	0:02:11	0:16:16
	9	20# Cross-link	4,400	20/40 Ottawa	2.5	11,000	60	0:01:45	0:18:01
	10	20# Cross-link	3,500	20/40 Ottawa	3	10,500	60	0:01:23	0:19:24
	11	Slickwater Flush	10,385						

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9.0 Perforation Summary

Name NBU 921-7J

Perforation and CBP Summary

Stage	Zones	Perforations Top, ft	Perforations Bottom, ft	SPF	Holes		Fracture Coverage		
1	UTELAND BUTTE	8788	8790	4	8		8750	to	8950
	UTELAND BUTTE	8828	8830	4	8				
	UTELAND BUTTE	8868	8870	4	8				
	UTELAND BUTTE	8908	8910	4	8				
					32		CBP DEPTH	8,750	
2	UTELAND BUTTE	8588	8590	4	8		8550	to	8750
	UTELAND BUTTE	8628	8630	4	8				
	UTELAND BUTTE	8668	8670	4	8				
	UTELAND BUTTE	8708	8710	4	8				
					32		CBP DEPTH	8,550	
3	UTELAND BUTTE	8388	8390	4	8		8350	to	8550
	UTELAND BUTTE	8428	8430	4	8				
	UTELAND BUTTE	8468	8470	4	8				
	UTELAND BUTTE	8508	8510	4	8				
					32		CBP DEPTH	8,350	
4	UTELAND BUTTE	8188	8190	4	8		8150	to	8350
	UTELAND BUTTE	8228	8230	4	8				
	UTELAND BUTTE	8268	8270	4	8				
	UTELAND BUTTE	8308	8310	4	8				
					32		CBP DEPTH	8,150	
5	UTELAND BUTTE	7988	7990	4	8		7950	to	8150
	UTELAND BUTTE	8028	8030	4	8				
	UTELAND BUTTE	8068	8070	4	8				
	UTELAND BUTTE	8108	8110	4	8				
					32		CBP DEPTH	7,950	
6	UTELAND BUTTE	7788	7790	4	8		7750	to	7950
	UTELAND BUTTE	7828	7830	4	8				
	UTELAND BUTTE	7868	7870	4	8				
	UTELAND BUTTE	7908	7910	4	8				
					32		CBP DEPTH	7,750	
7	UTELAND BUTTE	7588	7590	4	8		7550	to	7750
	UTELAND BUTTE	7628	7630	4	8				
	UTELAND BUTTE	7668	7670	4	8				
	UTELAND BUTTE	7708	7710	4	8				
					32		CBP DEPTH	7,550	
8	UTELAND BUTTE	7388	7390	4	8		7350	to	7550
	UTELAND BUTTE	7428	7430	4	8				
	UTELAND BUTTE	7468	7470	4	8				
	UTELAND BUTTE	7508	7510	4	8				
					32		CBP DEPTH	7,350	
9	UTELAND BUTTE	7188	7190	4	8		7150	to	7350
	UTELAND BUTTE	7228	7230	4	8				
	UTELAND BUTTE	7268	7270	4	8				
	UTELAND BUTTE	7308	7310	4	8				
					32		CBP DEPTH	7,150	

RECEIVED: Dec. 16, 2013

Name NBU 921-7J
Perforation and CBP Summary

Stage	Zones	Perforations Top, ft	Perforations Bottom, ft	SPF	Holes		Fracture Coverage		
10	UTELAND BUTTE	6988	6990	4	8		6950	to	7150
	UTELAND BUTTE	7028	7030	4	8				
	UTELAND BUTTE	7068	7070	4	8				
	UTELAND BUTTE	7108	7110	4	8				
					32		CBP DEPTH	6,950	
11	UTELAND BUTTE	6788	6790	4	8		6750	to	6950
	UTELAND BUTTE	6828	6830	4	8				
	UTELAND BUTTE	6868	6870	4	8				
	UTELAND BUTTE	6908	6910	4	8				
					32		CBP DEPTH	6,750	
12	UTELAND BUTTE	6588	6590	4	8		6550	to	6750
	UTELAND BUTTE	6628	6630	4	8				
	UTELAND BUTTE	6668	6670	4	8				
	UTELAND BUTTE	6708	6710	4	8				
					32		CBP DEPTH	6,550	
13	UTELAND BUTTE	6388	6390	4	8		6350	to	6550
	UTELAND BUTTE	6428	6430	4	8				
	UTELAND BUTTE	6468	6470	4	8				
	UTELAND BUTTE	6508	6510	4	8				
					32		CBP DEPTH	6,350	
14	UTELAND BUTTE	6188	6190	4	8		6150	to	6350
	UTELAND BUTTE	6228	6230	4	8				
	UTELAND BUTTE	6268	6270	4	8				
	UTELAND BUTTE	6308	6310	4	8				
					32		CBP DEPTH	6,150	
15	UTELAND BUTTE	5988	5990	4	8		5950	to	6150
	UTELAND BUTTE	6028	6030	4	8				
	UTELAND BUTTE	6068	6070	4	8				
	UTELAND BUTTE	6108	6110	4	8				
					32		CBP DEPTH	5,950	
16	UTELAND BUTTE	5788	5790	4	8		5750	to	5950
	UTELAND BUTTE	5828	5830	4	8				0
	UTELAND BUTTE	5868	5870	4	8				
	UTELAND BUTTE	5908	5910	4	8				
					32		CBP DEPTH	5,750	
17	UTELAND BUTTE	5588	5590	4	8		5550	to	5750
	UTELAND BUTTE	5628	5630	4	8				
	UTELAND BUTTE	5668	5670	4	8				
	UTELAND BUTTE	5708	5710	4	8				
					32		CBP DEPTH	5,550	
18	UTELAND BUTTE	5388	5390	4	8		5350	to	5550
	UTELAND BUTTE	5428	5430	4	8				
	UTELAND BUTTE	5468	5470	4	8				
	UTELAND BUTTE	5508	5510	4	8				
					32		CBP DEPTH	5,350	
	Totals				576				

RECEIVED: Dec. 16, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0575-B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-7J

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047525140000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2211 FSL 2441 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 07 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 12/20/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

We have completed the work over procedure on the liner remover, recovering only a 10' section of 4 ½" casing and the liner hanger. See the attached daily summaries.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
January 07, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Kay E. Kelly	720 929 6582	Regulatory Analyst
SIGNATURE		**DATE**
N/A		1/6/2014

RECEIVED: Jan. 06, 2014

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: MILES 3/3
Event: CONST- CAP WELL WORK	Start Date: 12/3/2013		End Date: 12/20/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/4/2013	7:00 - 7:30	0.50		48		P		HSM, WORKING IN COLD WEATHER
	7:30 - 10:00	2.50	WO/REP	30	A	P		RIGGED UP, RU ROD EQUIP, RU HOT OILER.
	10:00 - 17:30	7.50	WO/REP	39	B	P		PUMPED 70 BBLS HOT WTR DWN CSG, UNPLUGGED FLOW LINE BLEW DWN TBG, UNSEAT PUMP, L/D PONIES & 1 ROD, FLUSH RODS W/ 30 BBLS T-MAC. L/D ALL RODS TOP OF 13 TH 3/4 ROD BAD WEAR, WEIGHT BARS, & PUMP. ND ROD TREE, X/O EQUIP TO TBG. SWI CHANGED RAMS IN BOPS, SDFN.
12/5/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WARMING EQUIP ON COLD WEATHER
	7:30 - 14:00	6.50	WO/REP	31	I	P		-28 DEGS, GOT EQUIP RUNNING, UNLAND TBG UNSET TBG ANCORE. POOH W/ 147 JTS, 7" ANCORE, 2 JT 27/8, SEAT NIPPLE, 2' PUP 27/8, X/O, 41/2 GAS ANCORE, X/O, 1 JT 27/8, BULL PLUG.
	14:00 - 18:30	4.50	WO/REP	31	I	P		PU RIH W/ 35/8 CUTTER & 150 JTS 23/8 J-55,EOT @ 4733', UNLOAD 27/8 AOH TBG & COLLARS, SWI DRAIN EQUIP SDFN.
12/6/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WORKING W/ FISHING TOOLS &
	7:30 - 17:00	9.50	WO/REP	31	I	P		SICP 0, PU 20 JTS 27/8 J-55,TAG UP @ 5346.77' LINER TOP ON NO GO, RU DRLG EQUIP. ROTATE & PUMP DWN TBG TO CUT 41/2 OFF @ 5355.87' S.L.M. PUMPED 60 BBLS WTR NO PSI, HANG SWIVEL IN DERICK PULL UP TO CHECK TBG WERE 13 TH BAD ROD BOX WAS FOR A HOLE IN TBG.ATEMPT TO PUMP DWN TBG AGAIN STILL NO PSI, POOH LOOK AT KNIFES ON CUTTERS.NO CUT ON CSG KNIFES WERE ON CSG TOP. RIH W/ MEC CUTTER & TBG. TAG LINER TOP W/ STOP @ 5356', RU SWIVEL CUT 41/2 @ 5364', HANG SWIVEL, POOH 170 JTS 27/8 L/D MEC CUTTER.
12/7/2013	7:00 - 7:15	0.25	WO/REP	48		P		SAFETY = JSA.
	7:15 - 17:00	9.75	WO/REP	30		P		SICP= 0#. P/U & RIH W/ 6" WASHOVER SHOE, BUMPER SUB, JARS, X/O's + 169JTS 2-7/8" J-55 TBNG W/ API SN 1JT ABOVE FISHING TOOLS. T/U 10' ABOVE LINER TOP @5346'. L/D 1JT TBNG. R/U SAND LINE. P/U & RIH W/ SV. SET SV IN SN & P/T TBNG GOOD @ 500#. POOH W/ SAND LINE. R/U POWER SWIVEL. TRY TO BREAK REVERSE CIRC BUT WELL WOULD NOT CIRCULATE. START WASHING DOWN TRASH WITHOUT CIRCULATION AS PER INSTRUCTIONS. WASH DOWN LAST 5' OF JT ON SUSPECTED PARAFFIN. P/U JT #170 AND WASH DOWN TO LINER TOP @5356'. START WASHING OVER LINER HANGER. WASH DOWN TOATL OF 8". FINALLY GOT PUMP RETURNS AFTER PUMPING 340 BBLS TMAC. PUMP WAS PRESSURING UP & KEPT LOSING RETURNS. P/U & CIRC BOTTOMS UP UNTIL RETURNS CLEAN. HANG BACK SWIVEL. POOH W/ 2 STANDS TBNG. DRAIN EQUIP. SWIFN. SDFN.

RECEIVED: Jan. 06, 2014

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: MILES 3/3
Event: CONST- CAP WELL WORK	Start Date: 12/3/2013		End Date: 12/20/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/9/2013	6:45 - 7:00	0.25	WO/REP	48		P		HSM. STAY OFF FLOOR WHILE SWIVEL IS TURNING.
	7:00 - 8:30	1.50	WO/REP	31	I	P		GET EVERYTHING STARTED. OPEN WELL 0 PSI. RIH W/ 5 JTS 27/8 TBG. RU DRL EQUIP. BRK CIRC. WASHOVER LINER HNGR F/ 5355' T/ 5359'. STOP MAKING HOLE. CIRC WELL CLEAN. STD BACK DRL EQUIP. POOH T/ CHANGE OUT WASHOVER SHOE. STD BCK 46 JTS 27/8 TBG. EOT @ 3912'. SWIFN. WINTERIZE WH, RIG PUMP & LINES.
12/10/2013	7:00 - 7:30	0.50	WO/REP	48	D	P		JSA -22* WORKING IN COLD WEATHER
	7:30 - 17:00	9.50	WO/REP	44	D	P		EOT @ 3912'. WHP= VACUM. CONTINUE POOH STDG BACK 2-7/8" TBG. BREAK OUT AND L/D WORE OUT WASH OVER SHOE. P/U NEW WASH OVER SHOE W/ 1/8" SMALLER ID & RIH ON 2-7/8" TBG. TAG LINER HANGER AT 5355'.R/U SWVL. ESTB CIRC W/ 250 BBLS 2% KCL WATER. DRILL & WASH OVER LINER HANGER TO 5357.5'. MADE APPROX 1-1/2 FOOT ON FIRST HOUR. ATTEMP TO WASH OVER FOR 2 + HOURS. NO LUCK. RLD SWVL. POOH STDG BACK TBG. WE LACKED 2-1/2 FOOT FROM WHERE TOOLS WERE YESTERDAY. FOUND ABOUT A 2 FT PEICE OF LINER HANGER IN WASH OVER SHOE. THERE WERE THREADS ON TOP SIDE OF LINER HANGER. 6PM DRAIN PUMP & LINES. SWI, SDFN. PREP TO RIH W/ ANOTHER WASH OVER SHOE IN AM.
12/11/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WALKING ON SLICK ICE.
	7:30 - 10:00	2.50	WO/REP	31	I	P		WELL ON VAC, BROKE APSRT WASH OVER SHOE REMOVED 2' PEICE OF LINER TOP, RIH W/ SAME 61/8 OD X 51/8 ID SHOE BHA & 170 JTS TBG TAG UP @ 5355', RU SWIVEL, BROKE CIRC W/ 140 BBLS T-MAC.
	10:00 - 12:30	2.50	WO/REP	44	D	P		MILL ON LINER TOP FOR APROX 8" GOT STUCK, GOT UNSTUCK & LOST CIRC UP TBG, SOMTHING STUCK IN SHOE, HUNG SWIVEL,
	12:30 - 17:00	4.50	WO/REP	31	I	P		POOH W/ TBG & BHA NOTHING FOUND INSIDE SHOE, WHAT EVER HAD US PLUGGED MUST HAVE FELL OUT. RIH W/ SAME SHOE & 170 JTS TBG TAG UP, RU SWIVEL. SWI DRAIN EQUIP. PREP TO START MILLING IN AM.
12/12/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WORKING W/ SWIVEL WASHING OVER LINER TOP.
	7:30 - 12:30	5.00	WO/REP	44	D	P		WELL ON VAC, BROKE CIRC REV W/ 140 BBLS, TROUBLE FREEZING UP. MILLED 9" OVER LINER GOT HUNG HAD TO JAR FREE @ 90,000 LBS, SEVERAL TIMES, TRY ROTATING BACK OVER AGAIN GOT HUNG UP AGAIN. JARRRED FOR 11/2 HRS @ 90,000 LBS, HIT DWN SEVERAL TIMES GOT FREE, DICIDED TO POOH TO LOOK @ SHOE.

RECEIVED: Jan. 06, 2014

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: MILES 3/3
Event: CONST- CAP WELL WORK	Start Date: 12/3/2013		End Date: 12/20/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:30 - 15:00	2.50	WO/REP	31	I	P		RD SWIVEL, POOH W/ 170 JTS & BHA., SHOE WAS CRACKING INBETWEEN BLADES & SOME CUT RIGHT WAS BROKE ON ID WERE PIECES HAD US HUNG UP, TOOK MILL TO TOWN TO GET RE BUILT. SWI DRAIN EQUIP SDFN.
12/13/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WATCHING FOOTING ON FLOOR.
	7:30 - 9:30	2.00	WO/REP	31	I	P		WELL ON VAC, PU RIH W/ REDRESSED 61/8 OD X 51/8 ID SHOE NO INSERTS & 170 JTS TBG, TAG UP RU SWIVEL.
	9:30 - 13:30	4.00	WO/REP	44	D	P		BROKE CIRC REV, MILL ON LINER TOP FOR 1 FOOT TOTAL OF 62" DRILLED. CIRC CLN, HANG SWIVEL.
	13:30 - 18:30	5.00	WO/REP	31	I	P		POOH W/ 170 JTS TBG,L/D WASH OVER SHOE ASSEMBLY. HAD 6" PIECE OF LINER IN SHOE. PU 31/4 SPEAR W/ 3.92 GRAPPEL,3- X/O'S, STOP SUB, X/O, BS, JARS, 4 - 31/2 COLLARS, INT, X/O, RIH W/ 130 JTS EOT 4245', SWI DRAIN EQUIP SDFN.
12/14/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WORKING W/ FISHERMAN, & TOOLS.
	7:30 - 8:00	0.50	WO/REP	31	B	P		-20 DEGS, WELL ON VAC, RIH W/ REM TBG TAG & SPEAR LINER TOP TAGED UP 6' HIGH @ 5358' SET GRAPPEL.
	8:00 - 9:30	1.50	WO/REP	31	B	P		JARRING ON FISH @ 90,000 LBS. CAME LOOSE.
	9:30 - 15:15	5.75	WO/REP	31	I	P		POOH HAVING TO JAR TROUGH CSG COLLARS. RUBBER FINALY WORE OUT, POOH L/D FISHING ASSEMBLY. FISH BECAME STUCK IN THE WELLHEAD. OPEN BOP PIPE RAM DOORS TO RETREIVE LOOSE ITEMS ON FISH TOP. HAD TO JAR FISH THRU WELLHEAD. +/- 1.5HRS BEFORE FISH WORKED FREE. FINISH BREAKING DOWN TOOLS.
	15:15 - 16:45	1.50	WO/REP	31	I	P		P/U FIHING BHA FOR SPEARING OUT CSNG. SPEAR, JARS, INTENSIFIER ETC. MAKE UP TOOLS W/ MANUAL TONGS. LEAVE FISHING TOOLS HANGING BEHIND THE FLOOR. SWIFN.
12/15/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, PICKING UP COLLARS OFF FLOAT
	7:30 - 17:00	9.50	WO/REP	31	B	P		- 15 DEGS, WELL ON VAC, PU REM BHA & 166 JTS 27/8 AOH PIPE.S.L.M. TAG UP @ 5354' TIE BACK TO SINGLE LINE, TAGGING APROX 8-10' HIGH TRY TO SPEAR 41/2 UNABLE SOME PEICES OF LINER HANGER MUST BE ON TOP OF 41/2.L/D JT 166. POOH W/ 36 JTS SWI SDFN.
12/16/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, WORKING W/ 3.5 SWIVEL.
	7:30 - 10:30	3.00	WO/REP	31	I	P		SICP O, POOH W/ REM 27/8 AOH & BHA, OPEN DOORS ON BOPS, NO JUNK ON TOP SPEAR, STND BACK COLLARS. SLIP MARKS ON SPEAR BTM.
	10:30 - 15:00	4.50	WO/REP	31	I	P		RIH W/ 61/8 MILL, X/O, BS, JARS, X/O, 170 JTS 27/8 AOH TAG UP @ 5351', RU 3.5 SWIVEL BROKE CIRC REV,
	15:00 - 18:30	3.50	WO/REP	44	D	P		MILL F/ 5351 TO 5354' EASY, DRILLED 1' HARD GETTING LOTS OF NEW METAL TO 5355', TRY TO WORK DWN WITHOUT ROTATING NOT MAKEING ANY HOLE DRILL AGAIN TO DRESS OFF TOP OF WHAT WE ARE DRILLING ON.IT SEEMS TO BE CSG. CIRC CLN, HANG SWIVEL, L/D JT 170 SWI DRAIN EQUIP, SDFN.
12/17/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM,

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: MILES 3/3
Event: CONST- CAP WELL WORK	Start Date: 12/3/2013		End Date: 12/20/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:30 - 10:00	2.50	WO/REP	31	I	P		WELL ON VAC, POOH W/ REM 27/8 AOH & MILL, L/D MILL IT HAD GOOD IMPRINT OF 41/2 CSG.
	10:00 - 17:30	7.50	WO/REP	31	B	P		RIH W/ SPEAR BHA & 165 JTS AOH, TIE RIG BACK ON SINGLE LINE, PU JT 166 TAG @ 5355' WORK SPEAR TO 110,000 SET OFF JARS SPEAR CAME OUT RU SWIVEL. GOT BACK IN PULL TO 140,000 SPEAR CAME OUT. RD SWIVEL. L/D JT 166.POOH W/ 163 JTS SWI DRAIN EQUIP SDFN
12/18/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, JARRING.
	7:30 - 15:00	7.50	WO/REP	31	I	P		SICP 0, PULL 3 JTS TBG & BHA, L/D SPEAR WE WERE IN CSG MAYBE 2 TEETH, PU 53/4 OVER SHOT W/ 41/2 GRAPPEL, 2 JTS 27/8 AOH, BHA, 164 JTS 27/8 AOH TAG 41/2 CSG, TRY TO GET LATCHED ON, PULLED TO 80,000 CAME OFF, NEVER COULD GET LATCHED ON AGAIN, WAIT ON ORDERS.
	15:00 - 16:30	1.50	WO/REP	31	I	P		RD SWIVEL, START OUT OF HOLE. SWI SDFN
12/19/2013	7:00 - 7:30	0.50	WO/REP	48		P		HSM, LAYING DOWN 27/8 AOH PIPE ON RACKS.
	7:30 - 17:00	9.50	WO/REP	31	I	P		SICP 0, L/D 170 JTS 27/8 AOH PIPE, & FISHING BHA. PU RIH BULL PLUG, 1 JT 27/8 J-55, 41/2 GAS ANCORE, 2' 27/8 PUP, PSN, 2 JTS 27/8 J-55, 7 TAC, 2 JTS 27/8 J-55, SWI SDFN.
12/20/2013	7:00 - 7:30	0.50	WO/REP			P		HSM, PICKING UP RODS OFF FLOAD
	7:30 - 11:00	3.50	WO/REP	31	I	P		SICP, O, RIH W/ REM 145 JTS ND BOPS SET TAC @ 4633' LAND W/ 10,000 # TENSION. RU ROD TREE & EQUIP. KB = 19' 71/16 HANGER = .83' 147 JTS 27/8 J-55 = 4613.50' 7" WEATHERFORD TAC = 2.35' @ (4633.33') 2 JTS 27/8 J-55 = 62.86' PSN = 1.10' @ (4698.54') 2' 27/8 PUP JT = 2.03' X/O 27/8 X 41/2 = 1.00' 41/2 GAS ANCORE = 45.43' X/O 27/8 X 41/2 = 1.00' 1 JTS 27/8 J-55 = 31.40' BULL PLUG = .75' EOT @ 4781.25'

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: MILES 3/3
Event: CONST- CAP WELL WORK	Start Date: 12/3/2013		End Date: 12/20/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:00 - 17:30	6.50	WO/REP	39		P		FLUSH TBG W/ 25 BBLS T-MAC,PU PRIME PUMP, PU RODS. TIGHT SPOT IN TBG @ 2925' & 3950' MIGHT BE OIL. SEAT & SPACED OUT PUMP, FILLTBG STROKE TEST PUMP TO 800 PSI OK. RU HYD TOWER. SDFWE. 11/2 X 30 PISTON STEEL POLISH ROD 2-2' X 7/8 PONYS 1-6' 7/8 PONY 1-8' 7/8 PONY 172 - 3/4 SLICK S-88 RODS 10 X 11/2 SINKER BARS 3- 3/4 GUIDED S-88 RODS 1- 7/8 STABILIZER BAR RH RELEASE TOOL WEATHERFORD 21/2 X 11/4 X 20' X 23' X 24' RHAC # 3740, ALT BALS & SEATSMAX STROKE 211"

RECEIVED: Jan. 06, 2014

API Well Number: 43047525140000

BHL 97' FSL, SWSE sec 10

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.: UTU0575B

1a. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name:

7. Unit or CA Agreement Name and No.: UTU88574X

2. Name of Operator: KERR-MCGEE OIL AND GAS ONSHORE LP
Contact: TEENA PAULO
E-Mail: Teena.Paulo@anadarko.com

8. Lease Name and Well No.: NBU 921-7J

3. Address: P.O. BOX 173779
DENVER, CO 82017

3a. Phone No. (include area code)
Ph: 720-929-6000

9. API Well No.: 43-047-52514

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface: Sec 7 T9S R21E Mer SLB NWSE 2211FSL 2441FEL 40.049476 N Lat, 109.593103 W Lon
At top prod interval reported below: Sec 7 T9S R21E Mer SLB NWSE 1733FSL 2448FEL
At total depth: Sec 18 T9S R21E Mer SLB SESW 145FSL 1947FEL

10. Field and Pool, or Exploratory: NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area: Sec 7 T9S R21E Mer SLB

12. County or Parish: UINTAH

13. State: UT

14. Date Spudded: 07/15/2013

15. Date T.D. Reached: 09/01/2013

16. Date Completed: ☐ D & A ☒ Ready to Prod. 09/29/2013

17. Elevations (DF, KB, RT, GL)*: 4729 KB

18. Total Depth: MD 12444 TVD 4902

19. Plug Back T.D.: MD 12431 TVD 4902

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
COMP SPEC NG-SD/DSN/ACTR-BHV-TRIP COM-RAD CBL/GR/C

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
11.000	9.625 J-55	36.0	19	3157		805		0	
8.875	7.000 P-110	26.0	26	5524		571		0	
6.125	4.500 P-110	13.5	5353	12432					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	4810							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	UTELAND BUTTE	5356	12431				
B)							
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
5356 TO 12431	ACID WASH WITH ESTIMATED 55 BBLS 28% HCL ACID AND 2,503 BBLS OF 15% HCL ACID PUMPED DOWNHOLE

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
09/29/2013	10/13/2013	24	→	13.0	84.0	0.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
64/64	81	66.0	→	13	84	0		POW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #225466 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED: Nov. 05, 2013

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				BIRD'S NEST	1939
				MAHOGANY	2607
				DOUGLAS CREEK	3535
				CARB MARKER	4640
				LONG POINT	4813
				UTELAND BUTTE	5215

32. Additional remarks (include plugging procedure):
The first 210 ft. of the surface hole was drilled with a 12 ? in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX csg was run from surface to 5524 ft.; LTC Production Liner with predrilled 1/2 inch holes, 1 hole per 2 ft, was run from 5353 ft to 12,432 ft. This procedure was an acid wash with the intent to flow back and no perforation or fracture procedure was done. Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #225466 Verified by the BLM Well Information System.
For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal

Name *(please print)* TEENA PAULO Title STAFF REGULATORY SPECIALIST

Signature (Electronic Submission) Date 11/04/2013

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

RECEIVED: Nov. 05, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/29/2013	0:00 - 7:00	7.00	MIRU	01	A	P	59	RIG DOWN AND MOVE OUT PRO PETRO RIG AND PIPE TRAILERS TO NBU 921-7J / TRANSFER WATER TO NEW LOCATION & CLEAN MUD TANKS / WAIT ON DAYLIGHT TO MOVE BACK YARD AND HEAVY EQUIPMENT
	7:00 - 12:30	5.50	MIRU	01	A	P	59	PJSM WITH JD FIELD SERVICE & RIG CREW. MOVE 9.8 MILES TO NBU 921-7J / MOVE IN AND RIG UP CAMPS AND SET IN CLOSED LOOP SYSTEM / STALLION 2 SEMI-TRUCKS, 2 CREW TRUCKS / J.D FIELD SERVICE HAD 4 BEDTRUCKS, 6 HAUL TRUCKS, 1 PUSHER, 1 SAFETY MAN, 2 SWAMPERS, 1 FORKLIFT / PROPETRO 4 SEMI LOADS, 1 RIG, 1 CREW RIDE, 1 PUSHER
	12:30 - 17:30	5.00	MIRU	01	B	P	59	RIG UP MUD TANKS AND PEAK CLOSE LOOP SYSTEM. RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.
	17:30 - 19:30	2.00	MIRU	08	A	Z	59	***FAILURE: RIG EQUIPMENT - RIG MAINTANENCE - CHANGE LINERS & SWABS IN MUD PUMP & REPACK TOP DRIVE
	19:30 - 20:00	0.50	DRLSUR	23		P	59	PRE SPUD JOB SAFETY MEETING WITH RIG CREW, PEAK CREW, AND SCIENTIFIC CREW. REVEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS PRIOR TO SPUD
	20:00 - 20:30	0.50	DRLSUR	06	A	P	59	PICK UP 12 1/4" BIT & NEW 8" 1.5 BEND MUD MOTOR. TRIP IN HOLE.
	20:30 - 22:00	1.50	DRLSUR	02	A	P	59	DRILL 12.25" SURFACE HOLE F/ 44'- T/ 210' BIT ROP= 166' @ 110.6 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 / TOTAL RPM~138 PUMPING 491 GPM @ 120 SPM STAND PIPE PRESSURE ON/OFF BOTTOM = 800/600 TORQUE ON/OFF BOTTOM = 2,400/700 UP/DN/ROT = 22/20/20 PEAK ON LINE MUD WT = 8.4
	22:00 - 22:30	0.50	DRLSUR	06	A	P	225	TRIP OUT OF HOLE. LAY DOWN 12 1/4" BIT
	22:30 - 23:00	0.50	DRLSUR	06	A	P	225	PICK UP 11"BIT AND DIRECTIONAL ASSEMBLY, SCRIBE. TRIP IN HOLE

RECEIVED: Nov. 05, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	23:00 - 0:00	1.00	DRLSUR	02	B	P	225	DRILL 11". SURFACE HOLE, F/ 210' - T/ 330', 120' @ 120 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 850/650 TORQUE ON OFF = 2,400/700 UP/DOWN/ ROT 55/48/50 K. DRAG 5 K. PEAK ON LINE MUD WT 8.4 SLID 5.0' = 1.74% 2.6' ABOVE AND 0.1' LEFT OF THE LINE HOLE ISSUES: NONE
7/30/2013	0:00 - 6:00	6.00	DRLSUR	02	B	P	345	DRILL 11" SURFACE HOLE, F/ 330' - T/ 1,160', 830' @ 138.3 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 950/700 TORQUE ON OFF = 2,500/800 UP/DOWN/ ROT 55/48/50 K. DRAG 5 K. PEAK ON LINE MUD WT 8.4 SLID 29' = 3.6% 3.1' BELOW AND 0.3' LEFT OF THE LINE HOLE ISSUES: NONE
	6:00 - 12:00	6.00	DRLSUR	02	B	P	1175	DRILL 11" SURFACE HOLE, F/ 1,160' - T/ 1,870', 710' @ 118.3 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,100/860 TORQUE ON OFF = 2,800/900 UP/DOWN/ ROT 69/60/65 K. DRAG 4 K. PEAK ON LINE MUD WT 8.4 SLID 18' = 2.86% .69' BELOW AND 1.1' LEFT OF THE LINE HOLE ISSUES: NONE
	12:00 - 18:00	6.00	DRLSUR	02	B	P	1885	DRILL 11" SURFACE HOLE, F/ 1,870' - T/ 2,320', 450' @ 75 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,200/1,000 TORQUE ON OFF = 3,000/1,000 UP/DOWN/ ROT 72/68/70 K. DRAG 2 K. PEAK ON LINE MUD WT 8.4 SLID 16' = 2.96% 1.8' BELOW AND 0.9' LEFT OF THE LINE HOLE ISSUES: NONE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLSUR	02	B	P	2335	DRILL 11" SURFACE HOLE, F/ 2,320' - T/ 2,890', 570' @ 95 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,500/1,280 TORQUE ON OFF = 3,100/1,100 UP/DOWN/ ROT 80/70/71 K. DRAG 9 K. PEAK ON LINE MUD WT 8.4 SLID 9' = 2.0% 1.1' BELOW AND 1.4' LEFT OF THE LINE HOLE ISSUES: NONE
7/31/2013	0:00 - 4:00	4.00	DRLSUR	02	B	P	2905	DRILL 11" SURFACE HOLE, F/ 2,890' - T/ 3,172', 282' @ 70.5 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,640/1,400 TORQUE ON OFF = 3,100/1,100 UP/DOWN/ ROT 82/75/80 K. DRAG 2 K. PEAK ON LINE MUD WT 8.4 SLID 28' = 8.48% 7.4' BELOW AND 1.4' LEFT OF THE LINE HOLE ISSUES: NONE
	4:00 - 6:00	2.00	DRLSUR	05	C	P	3187	CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS FULL / 3- 400 BBL UPRIGHT STORAGE TANKS FULL / 3 - 400 BBL UPRIGHT STORAGE TANKS EMPTY
	6:00 - 10:30	4.50	DRLSUR	06	D	P	3187	LAY DOWN DRILL PIPE & BHA
	10:30 - 11:30	1.00	DRLSUR	12	A	P	3187	PJSM AND SET UP RIG FOR RUNNING CASING
	11:30 - 12:30	1.00	DRLSUR	12	C	P	3187	RUN 7 JTS OF 9 5/8" 36# LT&C CASING TO A DEPTH OF 214'
	12:30 - 13:00	0.50	DRLSUR	23		Z	3187	INJURED EMPLOYEE AND SAFTEY STAND DOWN
	13:00 - 14:30	1.50	DRLSUR	12	C	S	3187	BEGIN LAYING DOWN CASING
	14:30 - 15:30	1.00	DRLSUR	08	A	Z	3187	*****FAILURE RIG EQUIPMENT -(BENT AND WEDGED PEN AND REICEVER FOR CASING RUNNING TOOLS)
	15:30 - 18:00	2.50	DRLSUR	23		S	3187	SAFETY STAND DOWN AND RIG WIDE RANDOM DRUG SCREENING WITH ANADARKO SAFETY MAN AND THIRD PARTY DRUG TESTERS
	18:00 - 19:00	1.00	DRLSUR	12	A	P	3187	PJSM AND SET RIG UP FROM RUNNING CASING TO PICKING UP BHA AND TRIPPING IN
	19:00 - 20:00	1.00	DRLSUR	06	A	P	3187	PICK UP 12.25" BIT AND MUD MOTOR AND COLLARS TO 210'
	20:00 - 0:00	4.00	DRLSUR	03	C	P	3187	REAM HOLE OPEN FROM 210' TO 1090'
8/1/2013	0:00 - 15:30	15.50	DRLSUR	03	C	P	3187	REAM HOLE OPEN FROM 1090' TO 3172', 2082' @ 134 FPH

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:30 - 16:30	1.00	DRLSUR	05	C	P	3187	CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS FULL / 3- 400 BBL UPRIGHT STORAGE TANKS FULL / 3 - 400 BBL UPRIGHT STORAGE TANKS EMPTY
	16:30 - 20:00	3.50	DRLSUR	06	D	P	3187	LAY DOWN DRILL PIPE & BHA
	20:00 - 21:00	1.00	CSGSUR	12	A	P	3187	PRE JOB SAFETY MEETING WITH PRO PETRO RIG CREW. MOVE PIPE RACKS AND CATWALK. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS.
	21:00 - 0:00	3.00	CSGSUR	12	C	P	3187	RAN 75 JOINTS (3142.4') OF 9-5/8", 36#, J-55, LT&C CASING WITH TOPCO FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE THE SHOE. 6 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 2,685'. LANDED CASING SHOE @ 3142' KB. BAFFLE PLATE @ 3,097' KB.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/2/2013	0:00 - 4:30	4.50	CSGSUR	12	E	P	3187	PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS. RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING. PRESSURE TEST LINES TO 1500 PSI. PUMP 200 BBLS OF FRESH WATER CLEARING SHOE. MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX AND PUMP 380 SX OF PREMIUM LEAD CEMENT WITH 10 LB/SX OF GILSONITE, 2 LB/SX OF GR-3, 3% SALT BWOC, 16% GEL, & 0.25 LB/SX FLOCELE. 193.55 BBLS OF SLURRY MIXED @ 12.1 PPG WITH YIELD OF 2.86 CF/SX. MIX AND PUMP 200 SX OF PREMIUM TAIL CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE. 40.9 BBLS OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY. DISPLACE WITH 239 BBLS OF FRESH WATER. GOOD RETURNS THROUGH JOB. FINAL LIFT OF 900 PSI AT 3 BBL/MINUTE. RETURNED 19 BBL CEMENT TO SURFACE. TESTED FLOAT AND FLOAT HELD. RELEASE RIG @ 04:30, 08/02/2013 CEMENT JOB VIEWED AND WATCHED BY CLIFF JOHNSON OF THE DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, & .25 LB/SX FLOCELE, 30.7 BBLS OF SLURRY MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. TOP JOB # 2: PUMP CEMENT DOWN ONE INCH PIPE WITH 75 SX PREMIUM CEMENT WITH 4% CACL2, & .25 LB/SX FLOCELE, 15.3 BBLS OF SLURRY MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. CEMENT RETURNS TO SURFACE. HOLE STOOD FULL RIG DOWN PRO PETRO CEMENTERS. CEMENT JOB FINISHED @ 05:40 08/02/2013
8/17/2013	9:00 - 18:00	9.00	MIRU3	01	A	P	3187	MOVE 20+ MILES WITH WESTROC & J&C CRANE, 5 BED, 4 HAUL, 1 CROWN TRUCKS, 4 SWAMPERS,2 PUSHERS, 1 CRANE, 3 OILERS, 50% MOVED, 25% RIGGED UP
	18:00 - 0:00	6.00	MIRU3	01	B	P	3187	R/U & WASH RIG WITH POWER WASHER
8/18/2013	0:00 - 6:00	6.00	MIRU3	01	B	P	3187	R/U CLEAN PITS, CHANGE OIL IN DRAW TOOL
	6:00 - 18:00	12.00	MIRU3	01	A	P	3187	FINISH RIG MOVE, 100% MOVED, 100% RIGGED UP, RAISE DERRICK @ 14:30, TRUCKS & CRANE RELEASED @ 18:00
	18:00 - 0:00	6.00	MIRU3	01	B	P	3187	RIG UP BACK YARD, LAYOUT BHA & DIR TOOLS
8/19/2013	0:00 - 9:00	9.00	MIRU3	01	B	P	3187	RIGUP PITS , PUMPS
	9:00 - 0:00	15.00	MIRU3	08	B	P	3187	***WORK ON DRAWORKS JACK SHAFT, & #1 FLOOR MOTOR TAIL SHAFT

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/20/2013	0:00 - 0:00	24.00	PRPSPD	08	B	P	3187	*** PULL TAIL SHAFT & JACK SHIFT, SEND TO TOWM FOR NEW BEARING, WRONG BEARING, ORDERED NEW ONE'S, ETA 06:00 8/21/13
8/21/2013	0:00 - 18:00	18.00	PRPSPD	08	B	P	3187	*** REPAIR TAIL SHAFT & JACK SHIFT, SEND TO TOWM FOR NEW BEARING, WRONG BEARING, ORDERED NEW ONE'S, INSTALL & TEST DRAWORKS
	18:00 - 22:00	4.00	PRPSPD	14	A	P	3187	N/U BOPE
	22:00 - 0:00	2.00	PRPSPD	15	A	P	3187	HELD SAFETY MEETING WITH RIG CREW & B & C TESTER, R/U & TEST BOPE, TEST PIPE RAMS, BLIND RAMS, INNER-OUTER BOP VALVES, CHOKE VALVES, FLOOR VALVES FOR 5 MIN 250 LOW,10 MIN 5000 HIGH, ANN 5 MIN 250- 10 MIN 2500, SURFACE CASING 1500 FOR 30 MIN'S
8/22/2013	0:00 - 2:00	2.00	PRPSPD	15	A	P	3187	FINISH TESTING BOPE
	2:00 - 2:30	0.50	PRPSPD	14	B	P	3187	INSTALL WEAR BUSHING
	2:30 - 8:00	5.50	PRPSPD	06	A	P	3187	HELD SAFETY MEETING WITH RIG, DIR, MUD HAND, P/U CREWS, P/U BIT, MM, R/U & P/U DIR TOOLS & SCRIBE, TEST DIR TOOLS ON SURFACE, P/U 66 JTS 5" HWDP, 30 4.5" HWDP & 4.5" DRILL PIPE TO TOP OF CEMENT @ 3112'
	8:00 - 9:00	1.00	PRPSPD	06	A	P	3187	LAYOUT & STRAP 4.5" HWDP
	9:00 - 11:00	2.00	PRPSPD	06	A	P	3187	P/U 4.5" HWDP & DP TO TOP OF CEMENT @ 3112'
	11:00 - 11:30	0.50	PRPSPD	14	B	P	3187	INSTALL ROTATING HEAD
	11:30 - 13:00	1.50	PRPSPD	02	F	P	3187	DRILL CEMENT, BAFFLE @ 3118, SHOE @ 3163 & OPEN HOLE TO 3187
	13:00 - 17:00	4.00	DRLIN1	02	B	P	3187	CLOSED LOOP SYSTEM DRILL F/ 3187 TO 3686', 499' @ 125' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 32 TRQ ON/OFF = 7/5 K PSI ON /OFF 1800/1400 , DIFF 300-500 PU/SO/RT = 165-140-150 K SLIDE = ROTATE = NOV / -DEWATERING DRILL FLARE, 0 CONN FLARE 0
	17:00 - 17:30	0.50	DRLIN1	07	A	P	3686	SERVICE RIG
	17:30 - 0:00	6.50	DRLIN1	02	B	P	3686	CLOSED LOOP SYSTEM DRILL F/ 3686' TO 4435', 749' @ 115.2' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.5 PPG VIS 32 TRQ ON/OFF = 7/5 K PSI ON /OFF 1800/1400 , DIFF 300-500 PU/SO/RT = 175-150-165 K SLIDE = ROTATE = NOV / -DEWATERING DRILL FLARE, 0 CONN FLARE 0

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/23/2013	0:00 - 1:30	1.50	DRLIN1	02	B	P	4593	CLOSED LOOP SYSTEM DRILL F/ 4435' TO 4593 WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.5 PPG VIS 32 TRQ ON/OFF = 7/5 K PSI ON /OFF 1800/1400 , DIFF 300-500 PU/SO/RT = 175-150-165 K SLIDE = ROTATE = NOV / -DEWATERING DRILL FLARE, 0 CONN FLARE 0
	1:30 - 2:30	1.00	DRLIN1	05	C	P	4593	CIRC 2 BOTTOMS UP
	2:30 - 5:00	2.50	DRLIN1	06	A	P	4593	TRIP OUT TO P/U CURVE ASSEMBLY
	5:00 - 6:00	1.00	DRLIN1	06	A	P	4593	L/D BIT #1 & 1.5 BEND MM, P/U BIT #2 MDI 611, MM WITH 2.25 BEND, SURFACE TEST MM & MWD TOOL
	6:00 - 9:00	3.00	DRLIN1	06	A	P	4593	TRIP IN HOLE
	9:00 - 13:30	4.50	DRLIN1	02	B	P	4593	CLOSED LOOP SYSTEM DRILL F/ 4593 TO 4788', 195' @ 43.3' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.5 PPG VIS 32 TRQ ON/OFF = 7/5 K PSI ON /OFF 1800/1400 , DIFF 300-500 PU/SO/RT = 175-150-165 K SLIDE = 100% ROTATE = NOV / -DEWATERING DRILL FLARE, 0 CONN FLARE 0
	13:30 - 17:30	4.00	DRLIN1	06	J	P	4593	TRIP OUT TO CHANGE OUT MM TO A 2.38 BEND
	17:30 - 18:00	0.50	DRLIN1	07	A	P	4593	SERVICE RIG
	18:00 - 22:30	4.50	DRLIN1	06	J	P	4593	TRIP IN HOLE WITH NEW 2.38 BEND MM
	22:30 - 0:00	1.50	DRLIN1	02	B	P	4820	CLOSED LOOP SYSTEM DRILL F/ 4788' TO 4820', 32' @ 21.3' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.5 PPG VIS 32 TRQ ON/OFF = 7/5 K PSI ON /OFF 1800/1400 , DIFF 300-500 PU/SO/RT = 175-150-165 K SLIDE = 100% ROTATE = NOV / -DEWATERING DRILL FLARE, 0 CONN FLARE 0

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/24/2013	0:00 - 8:00	8.00	DRLINC	02	B	P	4820	CLOSED LOOP SYSTEM DRILL F/ 4820' TO 5187', 367' @ 45.8' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.6 PPG VIS 34 TRQ ON/OFF = 8/10 K PSI ON /OFF 2100/1800 , DIFF 300-500 PU/SO/RT = 180-150-160 K SLIDE = 100% ROTATE = NOV / -DEWATERING MD 5112Incl 51.4Azim 178.21 TVD 5044.11V- Sec 253.4N/S253.4E/-W2.39DLS 11.96 DRILL FLARE, 0 CONN FLARE 0
	8:00 - 11:30	3.50	DRLINC	02	C	P	5187	CLOSED LOOP SYSTEM DRILL F/ 5187' TO 5319', 132' @ 37.7 WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.6 PPG VIS 34 TRQ ON/OFF = 8/10 K PSI ON /OFF 2100/1800 , DIFF 300-500 PU/SO/RT = 180-150-160 K SLIDE = 100% ROTATE = NOV / -DEWATERING MD 5301Incl 70.62Azim 177.01 TVD 5134 V- Sec 418.52N/S -418-3.57E/-W2.39DLS 11.96 DRILL FLARE, 0 CONN FLARE 0
	11:30 - 12:30	1.00	DRLINC	03	A	X	5319	***WASH & REAM TIGHT HOLE @ 5310 (ROCK FELL IN ON TOP OF US) WORK FREE & CLEAN
	12:30 - 13:00	0.50	DRLINC	02	C	P	5319	CLOSED LOOP SYSTEM DRILL F/ 5319' TO 5353', 34' @ 68' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.6 PPG VIS 34 TRQ ON/OFF = 8/10 K PSI ON /OFF 2100/1800 , DIFF 300-500 PU/SO/RT = 180-150-160 K SLIDE = 100% ROTATE = NOV / -DEWATERING MD 5301Incl 70.62Azim 177.01 TVD 5134 V- Sec 418.52 N/S -418E/-W 11.96 DRILL FLARE, 0 CONN FLARE 0
	13:00 - 14:30	1.50	DRLINC	03	A	X	5353	***WASH & REAM TIGHT HOLE @ 5325 (ROCK FELL IN ON TOP OF US), WORK FREE & CLEAN

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 17:30	3.00	DRLINC	02	C		5353	CLOSED LOOP SYSTEM DRILL F/ 5353' TO 5476', 123' @ 41' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.6 PPG VIS 34 TRQ ON/OFF = 8/10 K PSI ON /OFF 2100/1800 , DIFF 300-500 PU/SO/RT = 180-150-160 K SLIDE = 100% ROTATE = NOV / -DEWATERING MD 5427Incl 82.97Azim 176.46 TVD 5162 V- Sec 541.07 N-S-541.28E/-W 10.51 DRILL FLARE, 0 CONN FLARE
	17:30 - 18:00	0.50	DRLINC	07	A	P	5476	SERVICE RIG
	18:00 - 19:30	1.50	DRLINC	03		X	5476	***WASH & REAM TIGHT HOLE @ 5401' (ROCK FELL IN ON TOP OF US), WORK FREE & CLEAN
	19:30 - 23:00	3.50	DRLINC	02	C	P	5476	CLOSED LOOP SYSTEM DRILL F/ 5476' TO 5540', 64@ 18.3' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (2 PUMPS) - SPM 180 GPM MW 8.6 PPG VIS 34 TRQ ON/OFF = 8/10 K PSI ON /OFF 2100/1800 , DIFF 300-500 PU/SO/RT = 180-150-160 K SLIDE = 100% ROTATE = NOV / -DEWATERING MD 5489Incl 90.83Azim 176.47 TVD 5166 V- Sec 602.92 N-S- -603.03E/-W 14.09 DRILL FLARE, 0 CONN FLARE
	23:00 - 0:00	1.00	DRLINC	05	C	P	5540	CIRC & COND WELL BORE FOR TRIP
8/25/2013	0:00 - 3:00	3.00	DRLINC	06	E	P	5540	TRIP OUT & LAYDOWN ALL DIR TOOLS, NO TIGHT SPOTS
	3:00 - 6:30	3.50	DRLINC	06	E	P	5540	P/U BIT & BIT SUB, TRIP IN HOLE, 5' FILL, NO GAS ON BOTTOMS UP
	6:30 - 7:30	1.00	DRLINC	05	C	P	5540	CIRC & COND WELL BORE FOR SHORT TRIP, MW 10.2, VIS 40, 140 SPM, 468 GPM
	7:30 - 9:30	2.00	DRLINC	06	E	P	5540	SHORT TRIP TO SHOE & BACK, NO TIGHT SPOTS, NO GAS ON BOTTOMS UP
	9:30 - 11:00	1.50	DRLINC	05	C	P	5540	CIRC & COND WELL BORE FOR LAYING DOWN DRILL PIPE, MW 10.2, VIS 40, 140 SPM, 458 GPM
	11:00 - 11:30	0.50	DRLINC	07	A	P	5540	SERVICE RIG
	11:30 - 15:30	4.00	DRLINC	06	A	P	5540	HELD PRE JOB SAFETY MEETING WITH RIG & KIMZEY LAY DOWN CREWS, R/U & LAY DOWN DRILL PIPE, 4.5" HWDP, 5" HWDP
	15:30 - 16:00	0.50	DRLINC	14	B	P	5540	PULL WEAR BUSHING

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 0:00	8.00	CSGIN2	12	C	P	5540	HELD PRE JOB SAFETY MEETING WITH RIG & KIMZEY CASING CREWS, R/U 18' BAILS, ELEVATORS & CRT TOOL, RUN 127 JTS HCP-110 7" 26# INTERMEDIATE CASING STRING, SHOE @ 5524', FLOAT @ 5433'
8/26/2013	0:00 - 2:30	2.50	CSGIN1	12	C	P	5540	HELD PRE JOB SAFETY MEETING WITH RIG & KIMZEY CASING CREWS, R/U 18' BAILS, ELEVATORS & CRT TOOL, RUN 127 JTS HCP-110 7" 26# INTERMEDIATE CASING STRING, SHOE @ 5524', FLOAT @ 5433'
	2:30 - 4:30	2.00	CSGIN1	05	D	P	5540	CIRC & COND HOLE TO CEMENT
	4:30 - 8:00	3.50	CSGIN1	12	E	P	5540	HELD SAFETY MEETING WITH RIG & BJ CEMENTING CREWS, TEST LINES TO 4000, PUMP 25 BBLS WATER SPACER, LEAD 15% EXCESS, 104.63 BBLS (296) SACKS 12.5 PPG 1.98 YLD,PLII +6%GELL +5#skKS +.4%FL52 +.2%SMS +.4% R-3+5#/skSF + 1/4#skCF TAIL 15% EXCESS, 64 BBLS (275) SACKS 14.3 PPG 1.32 YLD,50/50 poz+2%gell+0.55% R-3 + 10%salt+5#/blnd S.F.75%SMS SHUT DOWN CLEAN LINES, DROP TOP PLUG & DISPLACE WITH 208 BBLS RIG MUD 10.2 PPG, BUMP PLUG @ 1500 PSI, 500 OVER FINAL LIFT OF 1000 PSI, FLOATS HELD, FULL RETURNS THRU OUT JOB WITH 5 BBLS LEAD BACK TO SURFACE, 1.5 BBLS BACK TO TRUCK, EST TOP OF TAIL 3000', LEAD-0', FLUSH LINES & STACK , R/D CEMENTERS
	8:00 - 9:00	1.00	CSGIN1	14	B	P	5540	INSTALL PACKOFF
	9:00 - 10:00	1.00	PRPSPD	14	B	P	5540	INSTALL WEAR BUSHING
	10:00 - 11:00	1.00	PRPSPD	15	A	P	5540	TEST PIPE RAMS 250 LOW - 5000 HIGH & 7" CASING 4500 FOR 15 MIN
	11:00 - 12:00	1.00	PRPSPD	09	A	P	5540	CUT DRILL LINE
	12:00 - 14:00	2.00	PRPSPD	08	B	P	5540	CHANGE OUT SAVOR SUB TO 4" XT & BACKUP DIE'S ON TOP DRIVE TO 4" DRILL PIPE
	14:00 - 14:30	0.50	PRPSPD	07	A	P	5540	SERVICE RIG
	14:30 - 18:00	3.50	PRPSPD	21	D	P	5540	UNLOAD & STRAP 4" DRILL PIPE & 4" HWDP, LOAD & SEND BACK 5" HWDP
	18:00 - 0:00	6.00	PRPSPD	06	A	P	5540	HELD SAFETY MEETING W/ RIG & KIMZEY P/U CREW, R/U & P/U 150 JTS 4" DRILL PIPE
8/27/2013	0:00 - 1:30	1.50	PRPSPD	06	A	P	5540	FINISH PICKING UP 4" DRILL PIPE
	1:30 - 5:00	3.50	PRPSPD	02	F	P	5540	DRILL CEMENT, FLOAT @ 5433, SHOE @ 5524 & OPEN HOLE TO 5540

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	5:00 - 8:00	3.00	DRLPRL	02	C	P	5540	CLOSED LOOP SYSTEM DRILL F/ 5540' TO 5665, 125' @ 41.6' PH WOB / 15-20 RPM TOP DRIVE 55-60, MM 135 (1 PUMPS) - 80 SPM 235 GPM MW 8.6 PPG VIS 34 TRQ ON/OFF = 8/10 K PSI ON /OFF 2100/1800 , DIFF 300-500 PU/SO/RT = 180-150-160 K SLIDE = 100% ROTATE = NOV / -DEWATERING MD 5112Incl 51.4Azim 178.21 TVD 5044.11V- Sec 253.4N/S253.4E/-W2.39DLS 11.96 DRILL FLARE, 0 CONN FLARE 0
	8:00 - 8:30	0.50	DRLPRL	05	C	P	5665	CIRC HOLE CLEAN FOR TRIP
	8:30 - 11:30	3.00	DRLPRL	06	A	P	5665	TRIP OUT TO CHANGE BHA TO RSS
	11:30 - 15:30	4.00	DRLPRL	06	A	P	5665	CHANGE OUT BHA TO RSS
	15:30 - 17:30	2.00	DRLPRL	06	A	P	5665	TRIP IN HOLE TO 4707'
	17:30 - 18:00	0.50	DRLPRL	07	A	P	5665	SERVICE RIG
	18:00 - 0:00	6.00	DRLPRL	06	A	P	5665	TRIP IN HOLE TO 5540, WASH & REAM TIGHT HOLE TO FROM 5540 TO 5665
8/28/2013	0:00 - 1:00	1.00	DRLPRL	03	D	P	5665	WASH & REAM TO 5665
	1:00 - 9:00	8.00	DRLPRL	02	C	P	5665	CLOSED LOOP SYSTEM DRILL F/ 5,665' TO 6,122' WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 90 SPM 263 GPM MW 8.9 PPG VIS 41 TRQ ON/OFF = 5,400/2,400 K PSI ON /OFF 2,700/2,400 , DIFF 250-300 PU/SO/RT = 86-77-82 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 6,039'Incl 92.58 Azim 179.74 TVD 5,137' V- Sec 1,151' SOUTH -1,150.81 EAST 50.82 DLS 1.32 DRILL FLARE, 0 CONN FLARE 0

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 13:00	4.00	DRLPRL	02	C	P	6122	CLOSED LOOP SYSTEM DRILL F/ 6,122' TO 6,392' WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 90 SPM 263 GPM MW 9.0 PPG VIS 41 TRQ ON/OFF = 5,700/2,400 K PSI ON /OFF 2,800/2,500 , DIFF 250-300 PU/SO/RT = 87-75-82 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 6,324'Incl 92.61 Azim 191.89 TVD 5,125' V- Sec 1,432' SOUTH -1,433 EAST 17.38 DLS 3.72 DRILL FLARE, 0 CONN FLARE 0
	13:00 - 13:30	0.50	DRLPRL	07	A	P	6392	SERVICE RIG
	13:30 - 0:00	10.50	DRLPRL	02	C	P	6392	CLOSED LOOP SYSTEM DRILL F/ 6,392' TO 7,038' WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 90 SPM 263 GPM MW 9.1 PPG VIS 41 TRQ ON/OFF = 6,900/3,900 K PSI ON /OFF 3,000/2,700 DIFF 250-300 PU/SO/RT = 99-75-84 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 6,990'Incl 92.30 Azim 201.22 TVD 5,103' V- Sec 2,047' SOUTH -2,061 WEST -199.4 DLS 3.43 DRILL FLARE, 0 CONN FLARE 0
8/29/2013	0:00 - 8:00	8.00	DRLPRL	02	C	P	7038	CLOSED LOOP SYSTEM DRILL F/ 7,038' TO 7,533' WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 93 SPM 263 GPM MW 9.1 PPG VIS 48 TRQ ON/OFF = 7,300/3,900 K PSI ON /OFF 3,250/2,800 DIFF 250-300 PU/SO/RT = 99-75-84 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 7,466'Incl 90.62 Azim 172.57 TVD 5,085' V- Sec 2,510' SOUTH -2,528.2 WEST -265.4 DLS 10.89 DRILL FLARE, 0 CONN FLARE 0

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:00 - 17:00	9.00	DRLPRL	02	C	P	7533	CLOSED LOOP SYSTEM DRILL F/ 7,038' TO 8,187' WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 93 SPM 263 GPM MW 9.1 PPG VIS 45 TRQ ON/OFF = 9,400/4,200 K PSI ON /OFF 3,250/2,800 DIFF 250-300 PU/SO/RT = 110-73-86 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 8,120'Incl 92.89 Azim 179.9 TVD 5,060' V- Sec 3,155' SOUTH -3,168 WEST -156. DLS 2.44 DRILL FLARE, 0 CONN FLARE 0 100 % DOLOMITE
	17:00 - 17:30	0.50	DRLPRL	07	A	P	8187	RIG SERVICE
	17:30 - 0:00	6.50	DRLPRL	02	C	P	8187	CLOSED LOOP SYSTEM DRILL F/ 8,187' TO 8,753' WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 93 SPM 263 GPM MW 9.1 PPG VIS 45 TRQ ON/OFF = 9,000/ 5,000K PSI ON /OFF 3,350/2,950 DIFF 250-350 PU/SO/RT = 129-72-89 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 8,666'Incl 91.7 Azim 187.1 TVD 5,037' V- Sec 3,696' SOUTH -3,712 WEST -190.5 DLS 3.11 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE
8/30/2013	0:00 - 5:00	5.00	DRLPRL	02	C	P	8753	CLOSED LOOP SYSTEM DRILL F/ 8,753' TO 9,188' 435' = 87' FPH WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 93 SPM 263 GPM MW 9.1 PPG VIS 45 TRQ ON/OFF = 9,900/ 6,000K PSI ON /OFF 3,350/2,950 DIFF 250-350 PU/SO/RT = 125-46-94 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 9,121'Incl 92.44 Azim 185.5 TVD 5,019' V- Sec 4,147' SOUTH 4,165.2 WEST 227.1 DLS 3.45 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE
	5:00 - 6:00	1.00	DRLPRL	08	B	P	9188	WORK ON MUD PUMPS
	6:00 - 6:30	0.50	DRLPRL	05	F	P	9188	CIRCULATE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:30 - 15:00	8.50	DRLPRL	02	C	P	9188	CLOSED LOOP SYSTEM DRILL F/ 9,188' TO 9,747' 559" = 66' FPH WOB / 15-20 RPM TOP DRIVE 55-60, MM 69 (1 PUMPS) - 90 SPM 263 GPM MW 9.1 PPG VIS 44 TRQ ON/OFF = 10,200/ 6,000K PSI ON /OFF 3,450/3,100 DIFF 250-350 PU/SO/RT = 150-46-96 K SLIDE = 0 ROTATE = 100% NOV / CONVENTIONAL MD 9,680'Incl 92.1 Azim 177.02 TVD 4,999' V- Sec 4,704' SOUTH 4,723 WEST 231 DLS 2.38 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE
	15:00 - 15:30	0.50	DRLPRL	07	A	P	9747	SERVICE RIG
	15:30 - 16:30	1.00	DRLPRL	06	E	P	9747	TRIP/SWAP OUT 8 JOINTS OF DRILL PIPE FOR 8 JOINTS OF HEAVY WEIGHT DRILL PIPE
	16:30 - 0:00	7.50	DRLPRL	02	C	P	9747	CLOSED LOOP SYSTEM DRILL F/ 9,747' TO 10,282' 535' = 71.3' FPH WOB / 15-20 RPM TOP DRIVE 55-70, MM 69 (1 PUMPS) - 93 SPM 263 GPM MW 9.0 PPG VIS 43 TRQ ON/OFF = 10,700/ 6,000K PSI ON /OFF 3,600/3,250 DIFF 250-350 PU/SO/RT = 155-75-105 K SLIDE = 0 ROTATE = 100% NOV / DEWATERING/CONVENTIONAL MD 10,215'Incl 92.7 Azim 173.7 TVD 4,979' V- Sec 5,238' SOUTH 5,256.7 WEST 195.09 DLS 2.16 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/31/2013	0:00 - 8:00	8.00	DRLPRL	02	C	P	10,282	CLOSED LOOP SYSTEM DRILL F/ 10,282' TO 10,821' 539' = 67.3' FPH WOB / 15-20 RPM TOP DRIVE 55-70, MM 69 (1 PUMPS) - 91 SPM 263 GPM MW 9.0 PPG VIS 38 TRQ ON/OFF = 11,800/ 6,000K PSI ON /OFF 3,600/3,250 DIFF 250-350 PU/SO/RT = 156-76-107 K SLIDE = 0 ROTATE = 100% NOV / DEWATERING/CONVENTIONAL MD 10,765'Incl 91.1 Azim 161.5 TVD 4,958' V- Sec 5,782' SOUTH 5,795 WEST 90 DLS 3.58 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE
	8:00 - 16:00	8.00	DRLPRL	02	C	P	10,821	CLOSED LOOP SYSTEM DRILL F/ 10,821' TO 11,300' 479' = 60' FPH WOB / 10-20 RPM TOP DRIVE 55-70, MM 69 (1 PUMPS) - 91 SPM 263 GPM MW 9.0 PPG VIS 40 TRQ ON/OFF = 11,800/ 6,000K PSI ON /OFF 3,800/3,500 DIFF 250-350 PU/SO/RT = 193-82-109 K SLIDE = 0 ROTATE = 100% NOV / DEWATERING/CONVENTIONAL MD 11,236'Incl 92.37 Azim 161.07 TVD 4,943.5' V- Sec 6,231.2' SOUTH 6,236.2 EAST 74.7 DLS 1.54 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE
	16:00 - 16:30	0.50	DRLPRL	07	A	P	11,300	RIG SERVICE
	16:30 - 0:00	7.50	DRLPRL	02	C	P	11,300	CLOSED LOOP SYSTEM DRILL F/ 11,300' TO 11,705' 405' = 54' FPH WOB / 10-20 RPM TOP DRIVE 40-60, MM 69 (1 PUMPS) - 91 SPM 263 GPM MW 9.0 PPG VIS 39 TRQ ON/OFF = 12,400/7,000K PSI ON /OFF 3,600/3,300 DIFF 250-350 PU/SO/RT = 235-75-107 K SLIDE = 0 ROTATE = 100% NOV / DEWATERING/CONVENTIONAL MD 11,615'Incl 92.1 Azim 162.04 TVD 4,929' V- Sec 6,596' SOUTH 6,595.7 EAST 193.7 DLS 1.16 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/1/2013	0:00 - 8:00	8.00	DRLPRL	02	C	P	11,705	CLOSED LOOP SYSTEM DRILL F/ 11,705' TO 12,064' 359' = 44' FPH WOB / 10-20 RPM TOP DRIVE 40-60, MM 69 (1 PUMPS) - 91 SPM 263 GPM MW 9.0 PPG VIS 39 TRQ ON/OFF = 13,300/7,000K PSI ON /OFF 3,600/3,300 DIFF 250-350 PU/SO/RT = 240-75-107 K SLIDE = 0 ROTATE = 100% NOV / DEWATERING/CONVENTIONAL MD 11,997'Incl 91.8 Azim 162.1 TVD 4,915' V- Sec 6,966' SOUTH 6,959.8 EAST 308.5 DLS .09 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMITE
	8:00 - 17:30	9.50	DRLPRL	02	C	P	12,064	CLOSED LOOP SYSTEM DRILL F/ 12,064' TO 12,444' TD 380' = 40' FPH WOB / 10-20 RPM TOP DRIVE 50-60, MM 69 (1 PUMPS) - 91 SPM 263 GPM MW 9.0 PPG VIS 40 TRQ ON/OFF = 13,300/7,000K PSI ON /OFF 3,600/3,300 DIFF 250-350 PU/SO/RT = 255-45-108 K SLIDE = 0 ROTATE = 100% NOV / DEWATERING/CONVENTIONAL MD 12,444'Incl 91.5 Azim 151.1 TVD 4,901' V- Sec 7,381' SOUTH 7,365.6 EAST 493.4 DLS .01 DRILL FLARE, 0 CONN FLARE 0 100% DOLOMIT
	17:30 - 18:00	0.50	DRLPRL	07	A	P	12,444	RIG SERVICE
	18:00 - 21:30	3.50	DRLPRL	05	B	P	12,444	CIRCULATE & RAISE MUD WT, 70 RPM
	21:30 - 0:00	2.50	DRLPRL	06	A	P	12,444	PUMP 7 STDS OUT , PUMP SLUG, TRIP OUT OF HOLE TO LAY DOWN DIRECTIONAL TOOLS
9/2/2013	0:00 - 9:30	9.50	DRLPRL	06	A	P	12,444	TRIP OUT OF HOLE ,FLOW CHECK @ SHOE / NO FLOW, TRIP OUT OF HOLE, REMOVE RADIO ACTIVE SOURCE, LAY DOWN DIRECTIONAL TOOLS ,
	9:30 - 0:00	14.50	DRLPRL	06	E	P	12,444	PICK UP WIPER BHA , TRIP IN HOLE , WASH AND REAM F/7,200'TO T/7,600', TRIP IN HOLE T/8,400', ROTATE T/8,800',PULL BACK TO 7,200' , REAM T/7,600' TRIP IN HOLE T/ 8,900', WASH & REAM T/10,800', MUD WT 9.9 VIS 46
9/3/2013	0:00 - 4:30	4.50	DRLPRL	03	E	P	12,444	WASH & REAM F/10,800' T/12,444' , MUD WT 9.9 VIS 46
	4:30 - 5:00	0.50	DRLPRL	05	G	P	12,444	PUMP/SPOT 70BBLS 4% NUT SHELL, MUD WT 10.5 VIS 46
	5:00 - 6:00	1.00	DRLPRL	06	E	P	12,444	TRIP OUT OF HOLE T/11,000'
	6:00 - 6:30	0.50	DRLPRL	05	G	P	12,444	PUMP/SPOT 70BBLS 4% NUT SHELL, MUD WT 10.5 VIS 46

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013	End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:30 - 7:30	1.00	DRLPRL	06	E	P	12,444	TRIP OUT OF HOLE T/9,500'
	7:30 - 8:30	1.00	DRLPRL	05	G	P	12,444	PUMP/SPOT 70BBLS 4% NUT SHELL, MUD WT 10.5 VIS 46
	8:30 - 12:00	3.50	DRLPRL	06	E	P	12,444	TRIP OUT OF HOLE T/7,200', TRIP IN HOLE,FILL PIPE@10,500', TRIP IN HOLE T/11,770'
	12:00 - 13:00	1.00	DRLPRL	03	E	P	12,444	REAM F/11,770' T/12,444'
	13:00 - 16:00	3.00	DRLPRL	06	E	P	12,444	TRIP OUT OF HOLE F/12,444' T/5,350'
	16:00 - 16:30	0.50	DRLPRL	05	J	P	12,444	CIRCULATE BOTTOMS UP, CHECK FOR FLOW, PUMP SLUG
	16:30 - 17:00	0.50	DRLPRL	07	A	P	12,444	RIG SERVICE
	17:00 - 20:00	3.00	DRLPRL	06	E	P	12,444	TRIP OUT OF HOLE , LAY DOWN WIPER BHA
	20:00 - 21:30	1.50	EVALPR	11	D	P	12,444	JSA , RIG UP HALIBURTON XRMI LOGGING TOOL ON DRILL PIPE
	21:30 - 0:00	2.50	EVALPR	06	B	P	12,444	TRIP IN HOLE W/ LOGGING TOOL, FILL EVERY 1,500'
9/4/2013	0:00 - 1:00	1.00	DRLPRL	11	D	P	12,444	TRIP IN HOLE W/ LOGGING TOOL, FILL EVERY 1,500' TO 9,200'
	1:00 - 5:00	4.00	DRLPRL	11	D	P	12,444	RIG UP HALLIBURTON WIRE LINE SHIVES CROSS OVERS, SIDE ENTRY SUB,STRING FLOAT, RUN WIRE LINE IN HOLE AND PUMP ONTO WET CONNECT, SECURE LINE TO SIDE ENTRY SUB
	5:00 - 9:30	4.50	DRLPRL	06	B	P	12,444	TRIP IN HOLE WITH WIRE LINE LOG TO 9,215'
	9:30 - 14:30	5.00	DRLPRL	11	D	P	12,444	TRIP OUT OF HOLE , LOGGING @ 30 FEET A MINUTE TO 4,680'
	14:30 - 15:00	0.50	DRLPRL	07	A	P	12,444	RIG SERVICE
	15:00 - 0:00	9.00	DRLPRL	06	B	P	12,444	REMOVE CROSS OVERS, SIDE ENTRY SUB,STRING FLOAT, TRIP IN HOLE TO 7,743', INSTALL CROSS OVERS ,SIDE ENTRY ,STRING FLOAT, RUN WIRE LINE IN HOLE AND PUMP ONTO WET CONNECT, SECURE LINE TO SIDE ENTRY SUB, TRIP IN HOLE WITH LOGS
9/5/2013	0:00 - 1:00	1.00	EVALPR	06	B	P	12,444	TRIP IN HOLE WITH LOGS TO 11,133'
	1:00 - 5:00	4.00	EVALPR	11	D	P	12,444	TRIP OUT OF HOLE WHILE LOGGING @ 30 FEET MINUTE
	5:00 - 7:30	2.50	EVALPR	11	D	P	12,444	RETRIEVE WIRE LINE WET CONNECT ,REMOVE CROSS OVERS, SIDE ENTRY SUB , STRING FLOAT , RIG DOWN SHEAVES, TRIP OUT OF HOLE TO SHOE
	7:30 - 8:30	1.00	EVALPR	05	A	P	12,444	CIRCULATE BOTTOMS UP
	8:30 - 11:00	2.50	EVALPR	06	B	P	12,444	TRIP OUT OF HOLE , JSA - LAY DOWN LOGGING TOOLS
	11:00 - 11:30	0.50	EVALPR	07	A	P	12,444	RIG SERVICE
	11:30 - 19:30	8.00	CSGPRO	12	A	P	12,444	JSA, RIG UP CASING CREW AND LAY DOWN TRUCK , RUN 82 JOINTS OF PERFORATED 4.5" LTC 11.6# HCP-110 CASING, 1 MARKER 4.5" LTC 11.6# HCP-110 , 78 JOINTS OF PERFORATED 4.5" LTC 13.6# HCP-110 7,077' MAKE UP CASING HANGER , RIG DOWN CASING CREW & FLAG POLE
	19:30 - 23:00	3.50	CSGPRO	06	D	P	12,444	TRIP IN HOLE WITH DRILL PIPE TO 5,350' SHOE @ 12,427' HANGER @ 5,350' INCL 75 DEGREES
	23:00 - 23:30	0.50	CSGPRO	05	A	P	12,444	CIRCULATE BOTTOMS UP, MUD WT 9.9 VIS 42

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 7/17/2013		End Date: 9/6/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	23:30 - 0:00	0.50	CSGPRO	06	D	P	12,444	DROPPED BALLTO SET CASING HANGER PUMPED 37 BBLS PRESSURED UP 5,300 PSI SET HANGER , WAITED 15 MINUTES DID PUSH/PULL AT 90K/180K TWICE, HELD EACH POSITION FOR 5 MINUTES
9/6/2013	0:00 - 1:30	1.50	CSGPRO	12	C	P	12,444	SET CASING HANGER, TRAP 3,000 PSI ON DRILL PIPE,CLOSED PIPE RAMS , PRESSURED UP ANNULUS TO 2,700 PSI HELD FOR 5 MINUTES , RELEASED PRESSURE ,OPENED PIPE RAMS AND PICKED UP ON DRILL STRING , RELEASED OUT OF HANGER @ 139K
	1:30 - 2:00	0.50	CSGPRO	05	G	P	12,444	DISPLACE @ 5,300' WITH 200BBLS 10# BRINE
	2:00 - 13:30	11.50	CSGPRO	06	J	P	12,444	LAY DOWN DRILL PIPE AND HEVI WATE DRILL PIPE, LAY DOWN HANGER ASSEMBLY, TRIP IN HOLE AND CONTINUE TO LAY DOWN DRILL PIPE, RIG DOWN LAY DOWN TRUCK
	13:30 - 15:00	1.50	CSGPRO	24	A	P	12,444	REMOVE WEAR BUSHING AND INSTALL PACKOFF ON WELL HEAD , WITH CAMRERON HAND
	15:00 - 18:00	3.00	RDMO	14	A	P	12,444	NIPPLE DOWN BOPE, CHOKE , CLEAN MUD PITS. RIG RELEASED @ 18:00 09/06/2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: SWABBCO 10/10
Event: COMPLETION	Start Date: 9/24/2013		End Date: 9/24/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/17/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM. WHEN PU PIPE WATCH YOU PINTCH POINTS.
	7:00 - 9:00	2.00	FRAC	47	A	P		MIRU RIG. SPOT EQUIP. OPEN WELL 0 PSI. XO T/ 3 1/2 TBG EQUIP.
	9:00 - 11:00	2.00	FRAC	31	I	P		OPEN WELL 0 PSI. ND WH. NU BOP. RU RIG FLOOR & TBG EQUIP. PREP & TALLY 176 JTS 3 1/2 P-110 TBG W/ SLIM HOLE COLLARS. MIRU GRACO HYD CAT WALK.
	11:00 - 17:00	6.00	FRAC	31	I	P		RIH W/ 137 JTS 3 1/2 P-110. EOT @ 4308'
9/18/2013	6:45 - 7:00	0.25	FRAC	48		P		HSM. PINTCH POINTS.
	7:00 - 10:00	3.00	FRAC	31	I	P		OPEN WELL 0 PSI. CONT RIH W/ 3 1/2 P-110 WORKSTING. TAG LT @ 5350'. LD 2 JTS 3 1/2 TBG. PU 10' X 3 1/2 PUP JT. LAND TBG W/ KB ==========> 10.00 7 1/16 TBG HNGR =======> 1.12 10' X 3 1/2 PUP JT =======> 10.16 169 JTS 3 1/2 P-110 =====> 5307.37 OPEN ENDED TBG. EOT @ 5328.65 EOT IS 22' ABOVE LT.
	10:00 - 13:00	3.00	FRAC	47	A	P		RD 3 1/2 EQUIP & RIG FLOOR. ND BOP. NU WH. SWI. RD RIG AND RIG EQUIP.
9/23/2013	7:00 - 0:00	17.00	SUBSPR	32	E	P		7AM HELD JSA. MIRU IPS 2" COIL TUBING UNIT. NDWH, NUBOP STACK & INJECTOR HEAD. CRIMP & WELD WASH NOZZLE & AGITATOR TOOL ON END OF 2" COIL. BREAK CIRCULATION @ 2.5 BPM @ 6000#. 12N RIH TO 10,400' WITH OUT RESTRICTION. CIRCULATE @ 2-3/4 BPM @ 7000#. 2PM CONTINUE TO PUSH COIL IN HORIZONTAL SECTION. RUN @ 250' PER HR. 10,000# SNUB FORCE. CIRCULATE @ 2-3/4 BPM @ 7000#. DRILLING MUD IN RETURNS. 7PM EOT @ 11,200'. CREW CHANGE. CONTINUE ON. RIH W/ NOZZLE AND 2" COIL - - CLEAN OUT TO 12,010'. CIRC WELL CLEAN. CLEAN WATER AT SURFACE. PUMP 115 BBLS 28% HCL @ 2 BPM, 2.5 BPM RETURNS @ 6000# COIL PSI & 900# WHP. LET ACID SOAK FOR 30 MINUTES. PUMP REMAINING 115 BBLS 28% HCL. LET ACID SOAK FOR 2 HRS. 12 MID

RECEIVED: Nov. 05, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J	Rig Name No: SWABBCO 10/10
Event: COMPLETION	Start Date: 9/24/2013	End Date: 9/24/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/24/2013	0:00 - 22:30	22.50	FRAC	32	E	P		12 MID. EOT @ 12,010'. PUMP 15% HCL @ 2 BPM @ 6000# COIL PSI & 1200# CASING PSI WITH CASING SHUT IN. POOH WITH COIL @ 6' PER MINUTE PUMPING 15% HCL. 7AM SHIFT CHANGE. EOT @ 10,535' CONTINUE PUMPING 15% HCL @ 2 BPM @ 6000# COIL PSI & 1350# SHUT IN CASING PSI. POOH @ 6' PER MINUTE PUMPING ACID. 10AM INCREASE POOH SPEED TO 7.5 BPM. PUMP RATE @ 2 BPM @ 6000# COIL PSI & 1350# SHUT IN CASING PSI. 4PM CONTINUE POOH WHILE PUMPING ACID @ 2 BPM @ 6000# COIL PSI & 1400# SHUT IN CASING PSI. 7PM SHIFT CHANGE. EOT @ 6500'. CONTINUE POOH & PUMPING ACID AT SAME RATES & PSI. WITH EOT @ 5380' - - STOPPED POOH AND PUMPED LAST REMAINING 60 BBLS 15% HCL. 9PM CONTINUE POOH W/ COIL. WITH EOT @ 4800' - - DISPLACE COIL W/ 150 BBLS TMAC WATER , WHILE POOH. 5800# COIL PSI & 1400# SHUT IN CASING PSI. POOH WITH COIL TO SURFACE. DISPLACE ALL SURFACE LINES W/ TMAC WATER TO REMOVE ANY ACID IN LINES. 10:30 PM SWI. SHUT IN WELL PSI=1400#. LEAVE WELL SHUT IN FOR 48 HRS TO LET ACID SOAK. NOZZLE TOOL & COIL ALL LOOKED NEW AFTER COMPLETING THIS JOB. RDMO IPS COIL TUBING UNIT. OLTR= 2530 BBLS
9/27/2013	15:00 - 18:00	3.00	DRLOUT	30		P		ROAD RIG TO LOCATION FROM CIGE 207. MIRU. SPOT EQUIPMENT. WELL CURRENTLY FLOWING BACK. SDFN.
9/28/2013	7:00 - 7:15	0.25	DRLOUT	48		P		SAFETY = JSA. WORKING AROUND LIVE ACID.
	7:15 - 10:00	2.75	DRLOUT	30		P		0# ON WELL. R/U PUMP LINES. FLUSH TBNG & KEEP WELL DEAD W/ 60BBLS BRINE. X/O PIPE RAMS IN BOP TO 3-1/2". NDWH. NUBOP. X/O TO3-1/2" ELEVATORS, SLIP DIES ETC. MIRU PIPE L/D MACHINE.
	10:00 - 14:30	4.50	DRLOUT	31		P		UN-LAND WELL. POOH WHILE L/D ALL 3-1/2" P-110 TBNG. 169 JTS TOTAL + 10' SUB. L/D 3-1/2" HANDLING EQUIP. X/O PIPE RAMS TO 2-7/8". R/U 2-7/8" HANDLING EQUIP.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: SWABBCO 10/10
Event: COMPLETION	Start Date: 9/24/2013		End Date: 9/24/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 19:00	4.50	DRLOUT	31		P		P/U & RIH W/ 2-7/8" PRODUCTION TBNG. NDBOP. SET TAC W/ 10,000# TENSION. LAND WELL ON HANGER. NUWH. TURN WELL OVER TO FLOWBACK FOR MONITORING THRU NIGHT. WELL LEFT OPEN TO FLOWBACK TANKS. WELL LANDED AS FOLLOWS: KB = 19.00' HANGER = .83' 148JTS NEW 2-7/8" J-55 TBNG = 4644.86' 7" TAC = 2.35' 1JT NEW 2-7/8" J-55 TBNG = 31.46' 2-7/8" API SN = 1.10' 2-7/8" NEW J-55 PERF SUB= 6.20' 1JT NEW 2-7/8" J-55 TBNG = 31.40' COLLAR & 2-7/8" BULL PLUG =.75' EOT @4737.60' SN @4698.15' TAC@4664.34'
9/29/2013	7:00 - 7:15	0.25	DRLOUT	48		P		SAFETY = JSA.
	7:15 - 9:00	1.75	DRLOUT	30		P		0# ON WELL. CSNG OPEN TO FLOWBACK TANK. X/O TO ROD EQUIP. DRESS RODS.
	9:00 - 16:30	7.50	DRLOUT	39		P		P/U INSERT PUMP. PRIME / STROKE TEST GOOD. P/U & RIH W/ ROD STRING. SPACE OUT. SEAT & STROKE TEST PUMP & TBNG GOOD @ 1000#. INSTALL HORSE HEAD & PUMPING UNIT GUARDS. HELP INSTALL FLOW LINES & R/U LINE TO FLOWBACK TANK. HAD TROUBLE STARTING PUMP JACK MOTOR BUT EVENTUALLY GOT IT RUNNING. START PUMP JACK & CHECK TAG. HAD TO ADJUST TAG. R/D RIG. SDFN. ROD STRING INSTALLED AS FOLLOWS: 1-1/2" X 30' PISTON STEEL ROD 7/8" X 2' PONY ROD 174 3/4" S-88 SUCKER RODS W/ "T" COUPLINGS = 4350' 10 1-1/2" GRADE D WEIGHT BARS W/ "T" COUPLINGS = 250' 7/8" STABALIZER BAR = 2.50' RH RELEASE TOOL = .60' H-F 2STG HVR INSERT PUMP. 2-1/2" X 2" X 24'. RHAC. PUMP #AD12
	16:30 - 16:30	0.00	DRLOUT	50				WELL TURNED TO SALES @ 1600 HR ON 9/29/2013. 0MCFD, 0BWPD, OBBL OIL/DAY, FCP 0#, FTP 0#, N/A CHOKE.
10/3/2013	7:00 - 7:15	0.25	DRLOUT	48		P		SAFETY = JSA
	7:15 - 9:00	1.75	DRLOUT	30		P		FCP= 30#. FTP= 15#. MIRU. CNTRL WELL W/ 90BBLS BRINE. LET TBNG BLOW DEAD.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J			Spud Date: 7/29/2013
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: SWABBCO 10/10
Event: COMPLETION	Start Date: 9/24/2013		End Date: 9/24/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 11:30	2.50	DRLOUT	39		P		X/O TO ROD EQUIP. UN-SEAT PUMP & L/D 2 RODS. MIRU HOT OILER. FLUSH TBG W/ 40BBLS HOT BRINE. P/U 2 SUCKER RODS. RE-SEAT PUMP & P/T GOOD @ 1000#. RDMO HOT OILER. POOH W/ ROD STRING & INSERT PUMP.
	11:30 - 18:30	7.00	DRLOUT	31		P		X/O TO TBG EQUIP. X/O PIPE RAMS TO 2-7/8". CNTRL CSNG W/ 50BBLS BRINE. NDWH. UN-LAND WELL & RELEASE TAC. LAND BACK ON HANGER. NUBOP. R/U FLOOR. POOH W/ PRODUCTION TBNG AS FOLLOWS: 148JTS NEW 2-7/8" J-55 TBNG = 4644.86' 7" TAC = 2.35' 1JT NEW 2-7/8" J-55 TBNG = 31.46' 2-7/8" API SN = 1.10' 2-7/8" NEW J-55 PERF SUB= 6.20' 1JT NEW 2-7/8" J-55 TBNG = 31.40' COLLAR & 2-7/8" BULL PLUG =.75' L/D PERF SUB & DRAIN MUD ANCHOR. P/U & RIH W/ DIFFERENT GAS ANCHOR ASSEMBLY & TBNG AS FOLLOWS: KB = 19.00' HANGER = .83' 148JTS NEW 2-7/8" J-55 TBNG = 4644.86' 7" TAC = 2.35' 2JTs NEW 2-7/8" J-55 TBNG = 62.86' 2-7/8" API SN = 1.10' 2-7/8" NEW J-55 SUB= 2.03' X/O 2-7/8" X 4-1/2" SWEDGE = 1.00' 1JT NEW 4-1/2" P-110 CSNG = 45.43' (8 SLOTS CUT IN TOP 4' OF JT FOR INTAKE). X/O 4-1/2" X 2-7/8" SWEDGE = 1.00' 1JT NEW 2-7/8" J-55 TBNG = 31.40' COLLAR & 2-7/8" BULL PLUG =.75' EOT @4810.26' SN @4727.55' TAC@4662.34' NDBOP. SET TAC IN 10,000# TENSION. NUWH. X/O TO ROD EQUIP. TRY TO RIH W/ PUMP BUT INSERT PUMP WOULD NOT STROKE TEST. SWIFN.
10/4/2013	7:00 - 7:15	0.25	DRLOUT	48		P		SAFETY = JSA.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-7J		Spud Date: 7/29/2013	
Project: UTAH-UINTAH	Site: NBU 921-7J		Rig Name No: SWABBCO 10/10
Event: COMPLETION	Start Date: 9/24/2013		End Date: 9/24/2013
Active Datum: RKB @4,729.00usft (above Mean Sea Level)	UWI: NW/SE/0/9/S/21/E/7/0/0/26/PM/S/2211/E/0/2441/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 14:00	6.75	DRLOUT	39		P		0# ON WELL. FLUSH TBG W/ 30BBLS HOT TMAC. P/U INSERT PUMP. PRIME / STROKE TEST INSERT PUMP GOOD. RIH W/ INSERT PUMP & ROD STRING. SPACE OUT PUMP. SEAT & STROKE TEST PUMP GOOD @ 1000#. REMOVE 2 WEIGHTS FROM PUMP JACK (EXTREMELY WEIGHT HEAVY). INSTALL HORSE HEAD. BRING WELL ON LINE. RDMOL. RODS INSTALLED AS FOLLOWS: 1-1/2" X 30' PISTON STEEL ROD 7/8" X 2' PONY ROD 7/8" X 2' PONY ROD 7/8" X 6' PONY ROD 173 3/4" S-88 SUCKER RODS W/ "T" COUPLINGS = 4350' 10 1-1/2" GRADE D WEIGHT BARS W/ "T" COUPLINGS = 250' 3 3/4" S-88 GUIDED SUCKER RODS W/ T COUPLINGS = 75' 7/8" STABALIZER BAR = 2.50' RH RELEASE TOOL = .60' WEATHERFORD 2-1/2" X 1-1/4" X 20' X 23' X 24' THD INSERT PUMP. 10' X 3/4" DIP TUBE INSTALLED. RHAC. ALT BALLS & SEATS. PUMP # 3740.

RECEIVED: Nov. 05, 2013

PATHFINDER
A Schlumberger Company

PvA

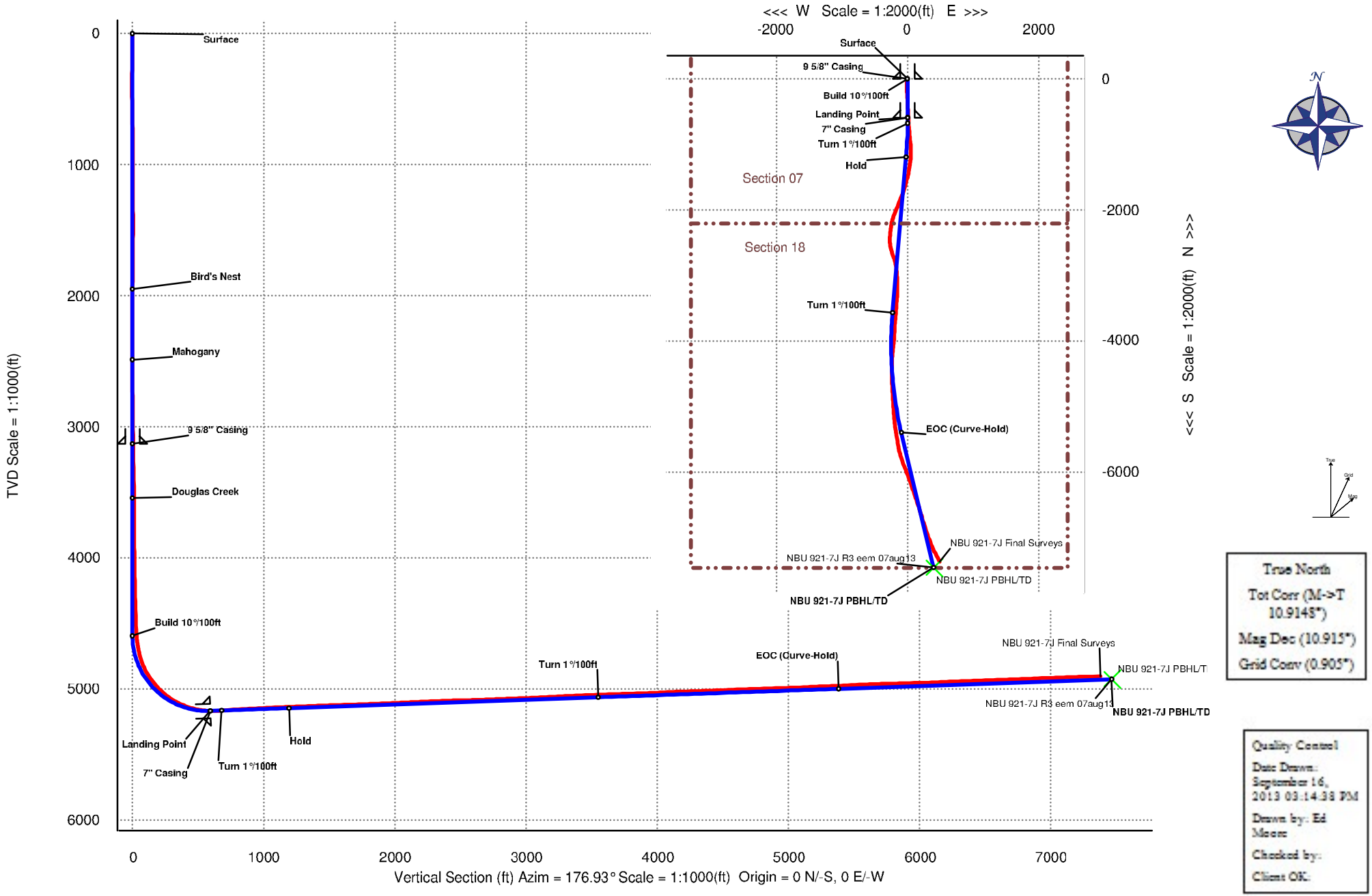
Anadarko

Anadarko Petroleum Corporation

API well Number: 43047525140000

WELL	FIELD	STRUCTURE
NBU 921-7J	UT, Uintah County	18-09S-21E (NBU 921-7J)

Magnetic Parameters					Surface Location				NAD27 Universal Transverse Mercator, Zone 12 North, US Feet				Miscellaneous			
Model:	BGGM 2013	Dip:	65.823°	Date:	September 11, 2013	Lat:	N 40 2 58.114	Northing:	14547171.17 ftUS	Grid Conv	0.905°	Slot	NBU 921-7J	TVD Ref	KB(4730ft above MSL)
		Mag Dec:	10.915°	FS:	52043.9nT	Lon:	W 109 35 35.171	Easting:	2034152.24 ftUS	Scale Fact	0.99977730	Plan:	NBU 921-7J Final Surveys	Srvy Date	September 11, 2013



Schlumberger

Anadarko Petroleum Corporation

NBU 921-7J Final Surveys Survey Geodetic Report

(Def Survey)

Report Date:	September 16, 2013 - 03:01 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Anadarko	**Vertical Section Azimuth:**	176.929 ° (True North)
Field:	UT, Uintah County Nad 27 Zone 12N 2013	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Anadarko 18-09S-21E (NBU 921-7J) / NBU 921-7J	**TVD Reference Datum:**	KB
Well:	NBU 921-7J	**TVD Reference Elevation:**	4730.000 ft above MSL
Borehole:	Original Hole	**Seabed / Ground Elevation:**	4711.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	10.915 °
Survey Name:	NBU 921-7J Final Surveys	**Total Gravity Field Strength:**	999.0462mgn (9.80665 Based)
Survey Date:	September 11, 2013	**Total Magnetic Field Strength:**	52043.926 nT
Tort / AHD / DDI / ERD Ratio:	301.244 ° / 7578.248 ft / 6.740 / 1.467	**Magnetic Dip Angle:**	65.823 °
Coordinate Reference System:	NAD27 Universal Transverse Mercator, Zone 12 North, US Feet	**Declination Date:**	September 11, 2013
Location Lat / Long:	N 40° 2' 58.11357", W 109° 35' 35.17084"	**Magnetic Declination Model:**	BGGM 2013
Location Grid N/E Y/X:	N 14547171.170 ftUS, E 2034152.240 ftUS	**North Reference:**	True North
CRS Grid Convergence Angle:	0.9054 °	**Grid Convergence Used:**	0.0000 °
Grid Scale Factor:	0.9997773	**Total Corr Mag North->True North:**	10.9148 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVDSS (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Tie-In	0.00	0.00	0.00	-4730.00	0.00	0.00	0.00	0.00	N/A	14547171.17	2034152.24	40.04948	-109.59310
	195.00	0.80	351.48	-4535.01	194.99	-1.36	1.35	-0.20	0.41	14547172.51	2034152.02	40.04948	-109.59310
	277.00	1.14	11.99	-4453.02	276.98	-2.71	2.71	-0.12	0.59	14547173.88	2034152.08	40.04948	-109.59310
	362.00	0.00	108.41	-4368.02	361.98	-3.53	3.54	0.06	1.34	14547174.71	2034152.24	40.04949	-109.59310
	452.00	0.52	176.46	-4278.02	451.98	-3.12	3.13	0.08	0.58	14547174.30	2034152.27	40.04948	-109.59310
	542.00	1.05	196.60	-4188.03	541.97	-1.94	1.93	-0.13	0.66	14547173.10	2034152.08	40.04948	-109.59310
	632.00	1.02	174.30	-4098.05	631.95	-0.36	0.34	-0.28	0.45	14547171.51	2034151.95	40.04948	-109.59310
	722.00	0.35	182.06	-4008.05	721.95	0.71	-0.73	-0.21	0.75	14547170.44	2034152.04	40.04947	-109.59310
	812.00	0.59	169.50	-3918.06	811.94	1.45	-1.46	-0.14	0.29	14547169.71	2034152.12	40.04947	-109.59310
	902.00	0.68	170.77	-3828.06	901.94	2.44	-2.44	0.03	0.10	14547168.73	2034152.31	40.04947	-109.59310
	992.00	0.27	118.12	-3738.07	991.93	3.08	-3.07	0.30	0.62	14547168.11	2034152.59	40.04947	-109.59310
	1082.00	0.05	351.01	-3648.07	1081.93	3.15	-3.13	0.49	0.34	14547168.05	2034152.77	40.04947	-109.59310
	1172.00	0.00	24.65	-3558.07	1171.93	3.11	-3.09	0.48	0.06	14547168.09	2034152.77	40.04947	-109.59310
	1262.00	0.26	142.51	-3468.07	1261.93	3.28	-3.25	0.60	0.29	14547167.93	2034152.89	40.04947	-109.59310
	1352.00	0.54	174.05	-3378.07	1351.93	3.87	-3.84	0.77	0.38	14547167.35	2034153.07	40.04947	-109.59310
	1442.00	0.44	99.62	-3288.07	1441.93	4.37	-4.32	1.16	0.66	14547166.87	2034153.46	40.04946	-109.59310
	1532.00	0.44	352.22	-3198.07	1531.93	4.10	-4.03	1.45	0.79	14547167.16	2034153.75	40.04946	-109.59310
	1622.00	0.88	348.26	-3108.08	1621.92	3.07	-3.01	1.26	0.49	14547168.18	2034153.55	40.04947	-109.59310
	1712.00	0.70	317.33	-3018.09	1711.91	1.97	-1.93	0.75	0.51	14547169.25	2034153.02	40.04947	-109.59310
	1802.00	0.69	303.52	-2928.09	1801.91	1.22	-1.23	-0.07	0.19	14547169.94	2034152.18	40.04947	-109.59310
	1892.00	0.88	292.19	-2838.10	1891.90	0.60	-0.67	-1.17	0.27	14547170.48	2034151.08	40.04947	-109.59311
	1982.00	0.60	353.19	-2748.11	1981.89	-0.16	0.06	-1.86	0.88	14547171.20	2034150.38	40.04948	-109.59311
	2072.00	0.70	23.51	-2658.11	2071.89	-1.12	1.03	-1.70	0.39	14547172.18	2034150.53	40.04948	-109.59311
	2162.00	0.44	47.41	-2568.12	2161.88	-1.84	1.77	-1.23	0.39	14547172.92	2034150.99	40.04948	-109.59311
	2252.00	0.09	126.87	-2478.12	2251.88	-2.01	1.96	-0.91	0.48	14547173.12	2034151.30	40.04948	-109.59311
	2342.00	0.07	251.65	-2388.12	2341.88	-1.95	1.90	-0.91	0.16	14547173.06	2034151.30	40.04948	-109.59311
	2432.00	0.15	96.29	-2298.12	2431.88	-1.92	1.87	-0.84	0.24	14547173.03	2034151.37	40.04948	-109.59311
	2522.00	0.26	198.85	-2208.12	2521.88	-1.71	1.67	-0.79	0.36	14547172.82	2034151.42	40.04948	-109.59311
	2612.00	0.78	187.88	-2118.12	2611.88	-0.92	0.87	-0.94	0.59	14547172.02	2034151.28	40.04948	-109.59311
	2702.00	0.50	184.19	-2028.13	2701.87	0.07	-0.13	-1.06	0.31	14547171.02	2034151.19	40.04948	-109.59311
	2792.00	0.77	215.22	-1938.14	2791.86	0.94	-1.02	-1.43	0.48	14547170.13	2034150.82	40.04947	-109.59311
	2882.00	0.88	198.85	-1848.14	2881.86	2.05	-2.16	-2.01	0.29	14547168.97	2034150.27	40.04947	-109.59311
	2972.00	0.67	208.82	-1758.15	2971.85	3.14	-3.28	-2.48	0.28	14547167.85	2034149.81	40.04947	-109.59311
	3062.00	0.70	196.74	-1668.16	3061.84	4.11	-4.27	-2.89	0.16	14547166.86	2034149.41	40.04946	-109.59311
	3122.00	0.76	195.38	-1608.16	3121.84	4.83	-5.00	-3.11	0.10	14547166.12	2034149.21	40.04946	-109.59311
	3167.00	0.75	97.72	-1563.17	3166.83	5.17	-5.33	-2.89	2.53	14547165.80	2034149.43	40.04946	-109.59311
	3262.00	1.42	198.00	-1468.18	3261.82	6.38	-6.53	-2.64	1.81	14547164.60	2034149.70	40.04946	-109.59311
	3357.00	1.48	195.74	-1373.21	3356.79	8.64	-8.83	-3.34	0.09	14547162.29	2034149.04	40.04945	-109.59311
	3451.00	1.69	194.28	-1279.24	3450.76	11.11	-11.34	-4.01	0.23	14547159.77	2034148.41	40.04944	-109.59312
	3546.00	0.52	186.64	-1184.26	3545.74	12.88	-13.13	-4.40	1.24	14547157.97	2034148.04	40.04944	-109.59312
	3638.00	0.17	14.30	-1092.26	3637.74	13.16	-13.41	-4.42	0.75	14547157.69	2034148.03	40.04944	-109.59312
	3733.00	0.19	67.79	-997.27	3732.73	12.97	-13.22	-4.24	0.17	14547157.89	2034148.21	40.04944	-109.59312
	3827.00	0.27	183.40	-903.27	3826.73	13.14	-13.38	-4.11	0.42	14547157.73	2034148.35	40.04944	-109.59312
	3922.00	0.55	217.97	-808.27	3921.73	13.71	-13.96	-4.40	0.38	14547157.14	2034148.06	40.04944	-109.59312
	4016.00	1.07	209.88	-714.28	4015.72	14.78	-15.08	-5.12	0.57	14547156.02	2034147.36	40.04943	-109.59312
	4109.00	1.20	203.43	-621.30	4108.70	16.38	-16.72	-5.94	0.20	14547154.36	2034146.57	40.04943	-109.59312
	4204.00	1.42	192.55	-526.32	4203.68	18.41	-18.79	-6.59	0.35	14547152.29	2034145.95	40.04942	-109.59313
	4298.00	1.34	194.70	-432.35	4297.65	20.58	-20.99	-7.12	0.10	14547150.08	2034145.46	40.04942	-109.59313
	4391.00	1.77	187.45	-339.38	4390.62	23.02	-23.46	-7.58	0.51	14547147.60	2034145.03	40.04941	-109.59313
	4485.00	1.95	179.54	-245.43	4484.57	26.05	-26.50	-7.76	0.33	14547144.56	2034144.91	40.04940	-109.59313
	4579.00	3.05	171.74	-151.52	4578.48	30.14	-30.58	-7.38	1.22	14547140.49	2034145.34	40.04939	-109.59313
	4610.00	5.45	171.09	-120.61	4609.39	32.42	-32.85	-7.04	7.74	14547138.22	2034145.72	40.04939	-109.59313
	4641.00	7.72	173.68	-89.82	4640.18	35.97	-36.37	-6.58	7.38	14547134.71	2034146.24	40.04938	-109.59313
	4672.00	9.70	177.82	-59.17	4670.83	40.66	-41.05	-6.25	6.70	14547130.04	2034146.64	40.04936	-109.59313
	4703.00	12.07	180.26	-28.73	4701.27	46.50	-46.90	-6.17	7.79	14547124.19	2034146.82	40.04935	-109.59313
	4735.00	14.25	180.22	2.42	4732.42	53.78	-54.19	-6.20	6.81	14547116.90	2034146.90	40.04933	-109.59313
	4768.00	16.19	179.07	34.26	4764.26	62.43	-62.85	-6.14	5.95	14547108.25	2034147.10	40.04930	-109.59312
	4800.00	19.67	178.91	64.71	4794.71	72.27	-72.70	-5.96	10.88	14547098.40	2034147.43	40.04928	-109.59312
	4831.00	23.14	178.82	93.56	4823.56	83.58	-84.01	-5.74	11.19	14547087.10	2034147.83	40.04925	-109.59312
	4862.00	26.66	179.31	121.68	4851.68	96.62	-97.06	-5.53	11.37	14547074.06	2034148.25	40.04921	-109.59312
	4892.00	30.72	180.63	147.99	4877.99	111.00	-111.45	-5.53	13.70	14547059.67	2034148.47	40.04917	-109.59312
	4922.00	33.70	181.59	173.37	4903.37	126.94	-127.44	-5.85	10.08	14547043.68	2034148.41	40.04913	-109.59312
	4954.00	36.00	180.13	199.63	4929.63	145.18	-145.72	-6.12	7.65	14547025.40	2034148.43	40.04908	-109.59312
	4985.00	39.05	177.66	224.21	4954.21	164.05	-164.59	-5.74	10.97	14547006.54	2034149.10	40.04902	-109.59312
	5017.00	42.36	176.66	248.47	4978.47	184.92	-185.43	-4.70	10.54	14546985.73	2034150.47	40.04897	-109.59312
	5049.00	44.56	178.25	271.69	5001.69	206.92	-207.42	-3.73	7.68	14546963.76	2034151.79	40.04891	-109.59312
	5080.00	47.57	178.46	293.20	5023.20	229.24	-229.73	-3.09	9.72	14546941.47	2034152.78	40.04885	-109.59311
	5112.00	51.40	178.21	313.99	5043.99	253.55	-254.05	-2.38	11.98	14546917.18	2034153.88	40.04878	-109.59311
	5143.00	54.55	177.63	332.65	5062.65	278.30	-278.78	-1.48	10.27	14546892.47	2034155.17	40.04871	-109.59311
	5175.00	58.06	178.49	350.40	5080.40	304.91	-305.38	-0.58	11.19	14546865.89	2034156.48	40.04864	-109.59311
	5206.00	61.55	178.49	365.99	5095.99	331.69	-332.16	0.13	11.26	14546839.13	2034157.61	40.04856	-109.59310
	5238.00	64.99	178.02	380.38	5110.38	360.26	-360.72	1.00	10.83	14546810.59	2034158.94	40.04849	-109.59310
	5270.00	67.54	177.41	393.26	5123.26	389.55	-389.99	2.17	8.16	14546781.35	2034160.57	40.04841	-109.59310
	5301.00	70.62	177.01	404.33	5134.33	418.50	-418.91	3.58	10.01	14546752.46	2034162.43	40.04833	-109.59309
	5332.00	73.59	177.04	413.85	5143.85	448.00	-448.37	5.11	9.58	14546723.04	2034164.43	40.04825	-109.59308
	5363.00	77.39	176.66	421.62	5151.62	478.00	-478.33	6.76	12.32	14546693.12	2034166.55	40.04816	-109.59308
	5395.00	80.33	176.61	427.80	5157.80	509.39	-509.67	8.60	9.19	14546661.82	2034168.89	40.04808	-109.59307
	5427.00	82.97	176.43	432.45	5162.45	541.05	-541.27	10.52	8.27	14546630.26	2034171.31	40.04799	-109.59307
	5458.00	86.49	176.92	435.29	5165.29	571.92	-572.08	12.31	11.46	14546599.49	2034173.59	40.04791	-109.59306
	5489.00	90.83	176.47	436.02	5166.02	602.90	-603.01	14.10	14.07	14546568.59	2034175.86	40.04782	-109.59305
	5562.00	93.68	174.87	433.15	5163.15	675.81	-675.74	19.60	4.48	14546495.98	2034182.51	40.04762	-109.59303
	5658.00	93.82	175.86	426.87	5156.87	771.57	-771.22	27.34	1.04	14546400.66	2034191.76	40.04736	-109.59301
	5753.00	93.27	175.61	420.99	5150.99	866.37	-865.77	34.40	0.64	14546306.25	2034200.30	40.04710	-109.59298
	5849.00	92.75	173.95	415.95	5145.95	962.17	-961.24	43.12	1.81	14546210.95	2034210.53	40.04684	-109.59295
	5944.00	92.65	178.49	411.47	5141.47	1057.03	-1055.90	49.37	4.77	14546116.42	2034218.28	40.04658	-109.59293
	6039.00	92.58	179.74	407.14	5137.14	1151.86	-1150.79	50.84	1.32	14546021.59	2034221.24	40.04632	-109.59292
	6134.00	92.31	186.01	403.08	5133.08	1246.21	-1245.53	46.08	6.60	14545926.80	2034217.98	40.04606	-109.59294
	6229.00	91.86	188.44	399.63	5129.63	1339.62	-1339.71	34.14	2.60	14545832.47	2034207.53	40.04580	-109.59298
	6324.00	92.61	191.89	395.92	5125.92	1432.01	-1433.13	17.39	3.71	14545738.81	2034192.26	40.04554	-109.59304
	6419.00	91.58	194.71	392.45	5122.45	1523.08	-1525.51	-4.45	3.16	14545646.12	2034171.89	40.04529	-109.59312
	6514.00	91.69	195.71	389.74	5119.74	1613.25	-1617.15	-29.36	1.06	14545554.13	2034148.44	40.04504	-109.59321
	6608.00	91.65	198.58	387.00	5117.00	1701.41	-1706.92	-57.06	3.05	14545463.94	2034122.17	40.04479	-109.59331
	6704.00	91.89	200.60	384.03	5114.03	1789.96	-1797.32	-89.23	2.12	14545373.07	2034091.44	40.04454	-109.59342

Comments	MD (ft)	Incl (°)	Azim True (°)	TVDSS (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	6801.00	91.72	202.73	380.97	5110.97	1878.01	-1887.41	-125.02	2.20	14545282.44	2034057.08	40.04429	-109.59355
	6896.00	92.68	204.43	377.33	5107.33	1962.85	-1974.41	-162.99	2.05	14545194.87	2034020.50	40.04406	-109.59369
	6990.00	92.30	201.22	373.24	5103.24	2047.32	-2060.96	-199.42	3.44	14545107.78	2033985.45	40.04382	-109.59382
	7086.00	92.48	195.53	369.24	5099.24	2136.56	-2151.95	-229.64	5.92	14545016.35	2033956.68	40.04357	-109.59392
	7181.00	92.37	188.64	365.21	5095.21	2228.11	-2244.70	-249.50	7.25	14544923.31	2033938.29	40.04331	-109.59399
	7276.00	92.48	186.24	361.19	5091.19	2321.43	-2338.81	-261.79	2.53	14544829.04	2033927.49	40.04306	-109.59404
	7371.00	92.03	182.82	357.45	5087.45	2415.51	-2433.43	-269.28	3.63	14544734.34	2033921.49	40.04280	-109.59406
	7466.00	90.62	172.57	355.25	5085.25	2510.34	-2528.20	-265.47	10.89	14544639.66	2033926.81	40.04254	-109.59405
	7561.00	91.93	163.30	353.13	5083.13	2604.05	-2620.97	-245.64	9.85	14544547.23	2033948.09	40.04228	-109.59398
	7656.00	92.20	159.54	349.71	5079.71	2695.51	-2710.95	-215.39	3.97	14544457.77	2033979.75	40.04203	-109.59387
	7751.00	91.96	165.42	346.26	5076.26	2787.41	-2801.44	-186.83	6.19	14544367.76	2034009.73	40.04179	-109.59377
	7845.00	92.82	174.19	342.33	5072.33	2880.51	-2893.78	-170.22	9.37	14544275.71	2034027.80	40.04153	-109.59371
	7936.00	91.72	176.41	338.72	5068.72	2971.39	-2984.40	-162.77	2.72	14544185.24	2034036.67	40.04128	-109.59368
	8028.00	92.72	177.67	335.16	5065.16	3063.32	-3076.20	-158.02	1.75	14544093.54	2034042.87	40.04103	-109.59367
	8120.00	92.89	179.91	330.66	5060.66	3155.16	-3168.07	-156.08	2.44	14544001.74	2034046.26	40.04078	-109.59366
	8210.00	92.96	181.34	326.06	5056.06	3244.85	-3257.94	-157.06	1.59	14543911.88	2034046.70	40.04053	-109.59366
	8300.00	92.86	184.91	321.49	5051.49	3334.19	-3347.68	-161.96	3.96	14543822.10	2034043.22	40.04029	-109.59368
	8392.00	91.79	183.78	317.76	5047.76	3425.35	-3439.34	-168.92	1.69	14543730.37	2034037.71	40.04003	-109.59371
	8483.00	92.13	183.66	314.65	5044.65	3515.66	-3530.09	-174.83	0.40	14543639.55	2034033.24	40.03979	-109.59373
	8575.00	92.34	184.43	311.06	5041.06	3606.88	-3621.79	-181.31	0.87	14543547.78	2034028.21	40.03953	-109.59375
	8666.00	91.72	187.19	307.84	5037.84	3696.72	-3712.26	-190.52	3.11	14543457.20	2034020.44	40.03929	-109.59378
	8757.00	91.62	181.99	305.18	5035.18	3786.84	-3802.90	-197.79	5.71	14543366.48	2034014.59	40.03904	-109.59381
	8848.00	91.86	182.70	302.42	5032.42	3877.39	-3893.78	-201.51	0.82	14543275.57	2034012.31	40.03879	-109.59382
	8939.00	92.51	184.49	298.95	5028.95	3967.70	-3984.53	-207.22	2.09	14543184.76	2034008.04	40.03854	-109.59384
	9030.00	93.20	187.56	294.42	5024.42	4057.44	-4074.90	-216.75	3.45	14543094.27	2033999.94	40.03829	-109.59388
	9121.00	92.44	185.58	289.94	5019.94	4147.04	-4165.19	-227.15	2.33	14543003.85	2033990.97	40.03804	-109.59391
	9212.00	91.14	183.77	287.10	5017.10	4237.16	-4255.84	-234.56	2.45	14542913.11	2033984.99	40.03779	-109.59394
	9304.00	91.96	179.59	284.61	5014.61	4328.79	-4347.74	-237.26	4.63	14542821.20	2033983.75	40.03754	-109.59395
	9396.00	92.41	179.33	281.10	5011.10	4420.63	-4439.67	-236.39	0.56	14542729.32	2033986.07	40.03729	-109.59395
	9491.00	92.48	179.76	277.05	5007.05	4515.45	-4534.58	-235.64	0.46	14542634.45	2033988.32	40.03703	-109.59394
	9586.00	92.07	179.26	273.28	5003.28	4610.27	-4629.50	-234.83	0.68	14542539.58	2033990.63	40.03677	-109.59394
	9680.00	92.10	177.02	269.86	4999.86	4704.18	-4723.38	-231.78	2.38	14542445.77	2033995.16	40.03651	-109.59393
	9760.00	91.69	176.14	267.21	4997.21	4784.14	-4803.20	-227.01	1.21	14542366.06	2034001.19	40.03629	-109.59391
	9851.00	91.89	176.74	264.37	4994.37	4875.09	-4893.98	-221.36	0.69	14542275.41	2034008.27	40.03604	-109.59389
	9942.00	91.62	177.09	261.58	4991.58	4966.05	-4984.80	-216.47	0.49	14542184.69	2034014.60	40.03579	-109.59388
	10033.00	92.31	175.46	258.46	4988.46	5056.98	-5075.55	-210.56	1.94	14542094.06	2034021.94	40.03554	-109.59385
	10124.00	93.03	175.65	254.22	4984.22	5147.86	-5166.18	-203.51	0.82	14542003.58	2034030.41	40.03529	-109.59383
	10215.00	92.79	173.70	249.60	4979.60	5238.67	-5256.67	-195.08	2.16	14541913.26	2034040.27	40.03505	-109.59380
	10308.00	90.89	170.64	246.61	4976.61	5331.28	-5348.74	-182.42	3.87	14541821.42	2034054.38	40.03479	-109.59375
	10399.00	93.27	170.88	243.31	4973.31	5421.69	-5438.49	-167.82	2.63	14541731.93	2034070.40	40.03455	-109.59370
	10490.00	92.89	169.92	238.42	4968.42	5511.97	-5528.08	-152.66	1.13	14541642.61	2034086.96	40.03430	-109.59365
	10582.00	92.55	169.96	234.06	4964.06	5603.18	-5618.57	-136.61	0.37	14541552.41	2034104.44	40.03405	-109.59359
	10673.00	91.75	164.74	230.64	4960.64	5692.82	-5707.27	-116.70	5.80	14541464.06	2034125.74	40.03381	-109.59352
	10765.00	91.14	161.51	228.32	4958.32	5782.12	-5795.26	-90.01	3.57	14541376.51	2034153.82	40.03357	-109.59342
	10856.00	91.62	159.41	226.13	4956.13	5869.36	-5880.99	-59.58	2.37	14541291.29	2034185.59	40.03333	-109.59332
	10952.00	91.44	158.86	223.56	4953.56	5960.73	-5970.66	-25.40	0.60	14541202.19	2034221.17	40.03309	-109.59319
	11046.00	91.65	158.44	221.03	4951.03	6049.95	-6058.18	8.81	0.50	14541115.24	2034256.75	40.03285	-109.59307
	11141.00	92.55	159.61	217.55	4947.55	6140.29	-6146.82	42.79	1.55	14541027.17	2034292.12	40.03260	-109.59295
	11236.00	92.37	161.07	213.47	4943.47	6231.25	-6236.20	74.72	1.55	14540938.33	2034325.45	40.03236	-109.59284
	11331.00	91.79	162.93	210.02	4940.02	6322.98	-6326.49	104.06	2.05	14540848.54	2034356.20	40.03211	-109.59273
	11426.00	92.13	161.29	206.77	4936.77	6414.76	-6416.84	133.22	1.76	14540758.68	2034386.79	40.03186	-109.59263
	11520.00	92.10	160.93	203.30	4933.30	6505.14	-6505.72	163.64	0.38	14540670.31	2034418.59	40.03162	-109.59252
	11615.00	92.10	162.04	199.82	4929.82	6596.65	-6595.74	193.78	1.17	14540580.80	2034450.15	40.03137	-109.59241
	11710.00	92.10	163.99	196.34	4926.34	6688.79	-6686.53	221.51	2.05	14540490.48	2034479.31	40.03112	-109.59231
	11805.00	91.65	161.49	193.23	4923.23	6780.84	-6777.19	249.68	2.67	14540400.29	2034508.90	40.03087	-109.59221
	11900.00	92.68	162.45	189.64	4919.64	6872.55	-6867.46	279.07	1.48	14540310.52	2034539.70	40.03062	-109.59211
	11997.00	91.86	162.17	185.80	4915.80	6966.33	-6959.80	308.52	0.89	14540218.68	2034570.60	40.03037	-109.59200
	12092.00	92.27	158.26	182.38	4912.38	7057.24	-7049.12	340.65	4.14	14540129.90	2034604.13	40.03013	-109.59189
	12187.00	91.62	156.70	179.15	4909.15	7146.77	-7136.82	377.01	1.78	14540042.80	2034641.86	40.02988	-109.59176
	12282.00	91.72	153.45	176.38	4906.38	7234.89	-7222.92	417.02	3.42	14539957.36	2034683.22	40.02965	-109.59161
	12377.00	91.55	151.14	173.67	4903.67	7321.21	-7306.99	461.17	2.44	14539874.02	2034728.68	40.02942	-109.59146
	12444.00	91.55	151.14	171.86	4901.86	7381.51	-7365.65	493.50	0.00	14539815.89	2034761.92	40.02926	-109.59134

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	19.000		Act Stns	30.000	30.000	SLB_CNSG+CASING-Depth Only	Original Hole / NBU 921-7J Final Surveys
	19.000	3122.000		Act Stns	30.000	30.000	SLB_CNSG+CASING	Original Hole / NBU 921-7J Final Surveys
	3122.000	12377.000		Act Stns	30.000	30.000	SLB_MWD-STD	Original Hole / NBU 921-7J Final Surveys
	12377.000	12444.000		Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Hole / NBU 921-7J Final Surveys